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THE

WEEKLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE

FOR THE YEAR

1891

(VOL. VIII.—THIRD SERIES)

CONTAINING

SYNOPTIC CHARTS,

AND

DESCRIPTIVE SUMMARIES OF THE WEATHER FOR EACH DAY;

ALSO

TABULAR SUMMARIES OF TEMPERATURE, RAINFALL, AND BRIGHT SUNSHINE, FOR EACH WEEK,

WITH MONTHLY SUPPLEMENTS AND TWO APPENDICES.

Published by the Authority of the Meteorological Council.

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1891.

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ERRATA.

Monthly Summary for July, p. xxviii.:—
Torquay.—Total of Bright Sunshine for the Month } for "719·2" read "219·2."

Blackpool.—The Rainfall Values entered against this station in the Monthly Summaries, after that for February, appear to be open to considerable doubt.

Bunhill Row.—The Bright Sunshine Values for London given in the Weekly Reports during November and December are probably too low, the recorder at Bunhill Row having been out of adjustment at that time.

PREFACE.

In the Weekly Weather Report for 1891 there have been no additions to the Tables or Charts; the latter cover the same area as those for last year, viz.: nearly the whole of Europe and the greater part of the Mediterranean. The general arrangement of the daily Remarks and Tabular matter is unaltered, and will be found on the first and second pages of each Report, which still covers six pages.

Monthly Summaries of the observations made at the stations included in the Daily and Weekly Weather Reports again appear as a Supplement.

Appendices I. and II. are published, as hitherto,—the former with some slight modification,—but Appendices III. and IV. will not be issued annually as hitherto; it is proposed, however, that at the close of 1895 the values shall be published for the three lustra 1881–85, 1886–90, 1891–95, and for the whole period of 15 years, 1881–95.

Tables giving the improved Means of Temperature, Rainfall and Bright Sunshine, now used in the preparation of the Weekly Reports and Summaries, will be found at the end of this Preface.

The general arrangement of the Weekly Report is as follows:—

LIST OF DISTRICTS.

For the purposes of this Report the United Kingdom is divided into eleven Districts, which are shown on the accompanying map, distinguished by the numbers 0 to 10. The positions of the stations supplying information are marked on the map by black dots, and their names are given in the following list, arranged under the districts to which they belong:—

METEOROLOGICAL DISTRICTS.

0. SCOTLAND, N.—Sumburgh Head, Stornoway, Wick, Lairg, Glencarron, Fort Augustus, Fort William.

1. SCOTLAND, E.—Nairn, Aberdeen, Braemar, Ochtertyre, Leith, Marchmont,

2. ENGLAND, N.E.—Alnwick Castle, Durham, Shields, Scarborough, York, Spurn Head.

3. ENGLAND, E.—Hillington, Yarmouth, Geldeston, Cambridge, Rothamsted.

4. MIDLAND COUNTIES.—Bawtry, Loughborough, Stamford (Ketton Hall), Cheadle, Churchstoke, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Strathfield Turgiss, Dungeness, Hastings (St. Leonard's), Southampton, Hurst Castle, Stowell.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Glenlee, Douglas (Isle of Man).

7. ENGLAND, N.W.—Newton Reigny (Penrith), Stonyhurst, Blackpool, Manchester, Liverpool Observatory (Bidston), Llandudno, Holyhead.

8. ENGLAND, S.W.—Llandovery, Pembroke, Arlington (N. Devon), Cullompton, Falmouth, Plymouth, Prawle Point.

9. IRELAND, N.—Malin Head, Londonderry, Mullaghmore, Belmullet, Markree Castle, Brookeborough, Armagh, Donaghadee, Edgeworthstown.

10. IRELAND, S.—Dublin, Parsonstown, Kilkenny, Waterford, Roche's Point, Valencia, Killarney, Foynes.

Besides these stations there are two in the Channel Islands, viz., Scilly (St. Mary's), and Jersey (St. Aubin's), which cannot be conveniently placed in any of the Districts. Records of sunshine only are given on the fourth page of each Report from eight additional stations, *viz.*, Edinburgh, Oswaldkirk, Worksop, Thurcaston, Eastbourne, Torquay, Arley Cottage (Co. Cavan), and Guernsey.

SUMMARY.

The Summary on the first page of each Report gives for each week and district the absolute *maximum* and *minimum* temperatures observed, the averages of both the daily extremes, the daily mean, and its difference from the average of the corresponding period, as derived from observations of the 20 years 1871–90 together with the values for "Accumulated" temperature above and below 42° F.

Daily Mean Temperature.

The daily mean Temperature shown in the Tables is calculated from the mean between the daily maxima and minima, due regard being had for the varying relation found to subsist, from month to month, between the true mean temperature of the day derived from 24 hourly observations, and the means of the daily maxima and minima for a series of years, as recorded at Greenwich and at the self-registering Observatories of the Meteorological Council.

The approximate Mean Daily Temperature for any week is found by multiplying the *difference* between the means of the seven observed maxima and minima by the proper coefficient for the month, as shown in the following Table, and adding the product to the observed minimum:—

Months.	Coefficient.
January. December.	0·520
February. November.	0·500
March. October.	0·485
April. September.	0·476
May. August.	0·470
June. July.	0·465

Example:

The mean maximum temperature for a week in December being	43°1
The mean minimum	39°3
The difference is	3·8

This difference 3·8 × ·520 (the coefficient for December) = 1·6.

This product when added to the mean minimum, 39·3, gives 43°·9, the required mean daily temperature of the week.

Accumulated Temperature.

The Tables of Accumulated Temperature are designed to give persons engaged in agriculture better means of estimating the manner in which vegetation is affected by temperature than that afforded by the more usual methods of treating the readings of the thermometer. They show for each week, and for the whole period from the commencement of the year, the weekly and progressive values, respectively, of the combined amount and duration of the excess

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or defect of the air temperature, above or below a suitably fixed standard, or *base temperature*. The base adopted is 42° F., as being nearly equivalent to 6° C. This has been considered by Continental writers on these subjects to be the critical value, the temperature above which is mainly effectual in starting and maintaining the growth, and in completing the ripening, of agricultural crops in a European climate. This base is also convenient as being 10° F. above the freezing point on the Fahrenheit scale.

The Accumulated Temperature is expressed in "Day-degrees,"—a Day-degree signifying 1° F. of excess or defect of temperature above or below 42° F. continued for 24 hours, or any other number of degrees for an inversely proportional number of hours.

When the temperature during any period remains either wholly above or below the base temperature, the difference between the base and the mean temperature gives the correct accumulated temperature. In other cases this difference gives an approximate value for the accumulated temperature, which does not depart greatly from the truth, the deviation depending on the greater or less extent of the variations of the temperature above or below the base. Further, since the mean between the maximum and minimum of any day is nearly equal to the mean temperature of the day, the difference of the mean of the maximum and minimum from the base will also give, directly, an approximation to the accumulated temperature for the day.

The following rules, however, supply a still closer approximation to the true values sought, and they have been adopted for the preparation of the Tables in this Report. They may be applied to any other base temperature as well as to 42° F., with the slight modification of the numerical coefficients mentioned below.

RULES for computing, for a WEEKLY PERIOD, from the observed MAXIMA and MINIMA, the ACCUMULATED TEMPERATURE above or below 42° F.

1. Obtain the mean temperature, from the means of the seven observed maxima and minima, in the manner already described for daily values.

2. In obtaining the accumulated temperature four cases may occur, to which the following rules will apply :—

Conditions of Temperature.	To obtain the daily Accumulated Temperature.	
	Above 42° F.	Below 42° F.
If the minimum is *above* 42° F. or *equal* to 42° F. -	Subtract 42° F. from the mean.	There is none.
If the minimum is *below* 42° F., but the mean for the day is *above* 42° F.	From the difference between the mean for the day and the minimum deduct the accumulated temperature below 42° F., calculated as stated in the next column.	The required quantity is the excess of 42° F. over the minimum, multiplied by the coefficient 0·4.
If the mean for the day is *below* 42° F., but the maximum is *above* 42° F.	The required quantity is the excess of the maximum over 42° F., multiplied by the co-efficient 0·4.	From the difference between the mean for the day and the minimum deduct the accumulated temperature above 42° F., calculated as stated in the preceding column.
If the maximum is *below* 42° F., or *equal* to 42° F. -	There is none.	Subtract the mean from 42° F.

In each of the above cases the result will be the average daily value, and must be multiplied by 7 in order to obtain the value for the whole week.

The coefficient varies with the duration of the period, and also with the base temperature.

The coefficient given above, in Rules 2 and 3, is for a weekly period, and for the base temperature 42° F. The following are its values for other base temperatures,—for 32° F., 0·4 ; for 52° F., 0·33 ; for 62° F., 0·25.

A full explanation of the principles on which these rules are based will be found in Appendix II. to the Quarterly Weather Report for 1878.

RAINFALL.

The Summary gives for each week and each District the number of rainy days, and the total fall of rain, as well as the progressive values reckoned from the commencement of the year, and the difference between these amounts and the means for the corresponding week in the 25 years 1866–90.

BRIGHT SUNSHINE.

The Summary gives for each week and each District the numbers of hours of sunshine recorded, and the percentage of that time to the whole time during which the sun is above the horizon ; also the progressive values reckoned from the commencement of the year, together with the difference between them and the mean for the corresponding period in the ten years 1881 to 1890.

SUPPLEMENT AND APPENDICES.

Supplement.—Consists of twelve Monthly Summaries of the results of the Observations made at the Stations included in the Daily and Weekly Weather Reports. Each Summary is illustrated by a lithographed plate.

Appendix I.—This contains (1) Summaries for each Quarter and for the whole year, of the Temperature and Rainfall records for each District, from 1866 to 1891, and (2) Tables giving for each district the monthly values for Rainfall, Accumulated Temperature (above and below 42° F.), and Bright Sunshine, as well as the progressive values for each from the commencement of the year, in continuation of the values given in Appendix I. for last year.

Appendix II. gives for year 1891, and for each District, the weekly and progressive values for Rainy days, Amount of Rainfall, Accumulated Temperature (above and below 42° F.), and Bright Sunshine, in continuation of the values for the years 1878–90 printed in Appendix II. to the Weekly Weather Report for last year.

Appendices III. and *IV.* are not published this year.

Tables showing for each degree of Latitude from 49° N. to 58° N., and for each Weekly and Monthly period, the total numbers of hours during which the Sun is above the Horizon, together with their Reciprocals, are given in the Preface to Vol. I., Second Series.

TABLE SHOWING THE REPORTS RECEIVED TOO LATE FOR INSERTION IN THEIR PROPER PLACES.

Date.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day Degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Per-centage of possible duration.	Difference from the Mean for the Week.
Week ending—		°	°	°	°	°	°				Inches.	Inches.				
December 26th, 1891	Llandudno	49	23	41·7	28·8	35·5	− 5·8	0	46	1	0·14	−0·55	25·0	+19·0	49	+27
January 2nd, 1892	Glencarron	48	32	41·6	33·0	37·4	0·0	0	32	7	4·08	+1·87	*	*	*	*

N.B.—The values for the earlier weeks have already appeared on the third page of the different weekly reports.

THE following is a LIST of the OBSERVERS who have furnished Information voluntarily for Publication in the WEEKLY WEATHER REPORT, 1891, together with the NAMES of their STATIONS and their ALTITUDE above the MEAN SEA LEVEL:—

Names of Stations.	Altitude above Mean Sea Level.	Names of Observers.	Remarks.
	Feet.		
Alnwick Castle	210	Lieut.-Col. Holland, for the Duke of Northumberland, K.G.	
Arley Cottage (Co. Cavan).	?	Major S. H. Maxwell. F.R.A.S.	Sunshine only.
Arlington (North Devon).	613	J. Carter, for Lady Chichester.	
Armagh	207	Staff of Observatory.	
Bawtry (Hesley Hall).	65	B. J. Whitaker, J.P., F. R. Met. Soc.	
Blackpool ¶	31	J. Wolstenholm.	
Braemar §	1,114	J. A. Aitken, J.P.	
Brookeborough	279	Mr. Ferguson, for Sir A. D. Brooke, Bt.	
Cheadle ¶	646	J. C. Philips.	
Churchstoke ¶	549	P. Wright, F.C.S., F.R. Met. Soc.	
Cirencester	446	The Royal Agricultural College.	
Cullompton ¶	202	J. Turner, F.R. Met. Soc.	
Douglas, Isle of Man.	137	A. W. Moore, M.A., J.P.	
Dublin	51	J. W. Moore, M.D., F. R. Met. Soc.	
Durham	335	H. J. Carpenter.	
Eastbourne	?	Mr. Sheward	Sunshine only.
Edgeworthstown	265	J. M. Wilson, J.P.	
Edinburgh	?	W. M. Mossman	Sunshine only.
Falmouth	210	Staff of Observatory.	
Fort Augustus §	75	Rev. E. G. Cody.	
Fort William §	37	Angus Rankin.	
Foynes	108	W. Ward, for Lord Monteagle, K.P.	
Geldeston	37	E. T. Dawson, F. R. Met. Soc.	
Glasgow	184	Staff of Observatory.	
Glencarron §	504	D. D. Munro, for Lord Maclaren.	
Glenlee §	230	G. Maxwell and W. Melville.	
Guernsey	?	F. E. Carey, M.D.	Sunshine only.
Hastings	116	H. Colborne, M.R.C.S.	
Hereford ¶	274	T. A. Chapman, M.D.	
Hillington ¶	88	Rev. H. E. B. Ffolkes, M.A., F. R. Met. Soc.	
Kilkenny	212	H. Carlton, for the Marquis of Ormonde, K.P.	
Killarney	110	The Ven. Archdeacon Wynne, F. R. Met. Soc.	
Lairg §	335	T. Young (Ground officer).	
Laudale	14	A. Fletcher, for T. G. H. Newton, F. R. Met. Soc.	
Llandovery	217	J. Watkins, F. R. Met. Soc.	
Llandudno ¶	79	J. Nicol, M.D., F. R. Met. Soc.	
Londonderry	93	J. Conroy, F. R. Met. Soc.	
Marchmont §	509	P Loney.	
Markree Castle	131	A. Marth, F.R.A.S., for Col. Cooper, F.R.A.S.	
Newquay	200	J. Pearce	Sunshine only.
Newton Reigny	578	T. G. Benn, F. R. Met. Soc.	
Ochertyre §	333	G. Croucher.	
Oswaldkirk	?	R. Thompson	Sunshine only.
Plymouth	125	J. Merrifield, LL.D., F.R.A.S., and H. N. Dickson.	
Prestwich	294	T. R. H. Clunn, M.D., F. R. Met. Soc.	
Rothamsted	368	Sir J. B. Lawes, Bart., LL.D., F.R.S., J. H. Gilbert, Ph. D., F.R.S., T. Wilson, F. R. Met. Soc.	
Scarborough ¶	157	W. Robinson.	
Southampton	74	The Ordnance Survey Office.	
Stonyhurst	360	Staff of Observatory.	
Stowell ¶	376	Rev. H. J. Poole.	
Strathfield Turgiss ¶	195	Rev. C. H. Griffith, M.A.	
Thurcaston	?	Rev. T. A. Preston, M.A., F. R. Met. Soc.	Sunshine only.
Torquay	?	A. Chandler, F. R. Met. Soc.	Sunshine only.
Waterford	104	C. Percival Bolton, J.P.	
Worksop	?	H. Mellish, J.P., F. R. Met. Soc.	Sunshine only.

Stations marked "¶" report through the Royal Meteorological Society; those marked "§" through the Scottish Meteorological Society.

The three Tables following give the Mean Values for Temperature, Rainfall, and Bright Sunshine used in preparing the Reports and Summaries.

TABLE I.—Showing for the Stations included in the Weekly Weather Reports and Monthly Summaries the Mean Values of
Whole Year, derived from Observations

Stations.	January.			February.			March.			April.			May.			June.			July.		
	Max.	Min.	Mean.	Max.	Min.	Mean	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
Sumburgh Head	42·9	35·6	39·3	42·4	34·5	38·5	42·6	33·9	38·3	46·0	36·7	41·4	50·3	40·2	45·3	54·6	45·0	49·8	57·4	48·0	52·7
Stornoway	43·3	34·5	38·9	43·5	34·6	39·1	44·9	34·5	39·7	48·9	37·2	43·1	53·3	41·1	47·2	58·0	45·9	52·0	60·2	48·9	54·6
Wick	42·4	33·3	37·9	43·1	33·2	38·2	44·8	34·0	39·4	48·9	36·9	42·9	53·9	40·6	47·3	58·9	45·5	52·2	61·8	48·7	55·3
Lairg	—	—	36·2	—	—	36·7	—	—	38·3	—	—	42·6	—	—	47·8	—	—	53·3	—	—	55·6
Glencarron	—	—	37·3	—	—	37·5	—	—	38·5	—	—	42·9	—	—	47·4	—	—	52·5	—	—	54·9
Fort Augustus	—	—	38·6	—	—	38·6	—	—	39·6	—	—	44·0	—	—	48·3	—	—	54·6	—	—	57·0
Fort William	—	—	39·4	—	—	39·2	—	—	40·5	—	—	45·1	—	—	49·7	—	—	55·3	—	—	57·2
Nairn	42·2	32·9	37·6	43·4	33·4	38·4	45·6	33·9	39·8	50·9	37·3	44·1	56·3	42·2	49·3	62·2	47·8	55·0	64·3	50·9	57·6
Aberdeen	42·4	33·2	37·8	43·2	33·8	38·5	45·4	34·4	39·9	49·3	38·0	43·7	55·0	41·9	48·5	61·2	47·2	54·2	63·9	50·6	57·3
Braemar	—	—	34·6	—	—	35·3	—	—	36·5	—	—	40·9	—	—	46·2	—	—	52·5	—	—	55·0
Ochtertyre	—	—	36·6	—	—	37·3	—	—	39·4	—	—	44·1	—	—	48·6	—	—	55·1	—	—	57·5
Leith	44·4	33·7	39·1	45·7	34·3	40·0	47·9	34·6	41·3	52·0	37·9	45·0	57·8	42·4	50·1	63·9	47·9	55·9	66·7	51·2	59·0
Marchmont	—	—	36·4	—	—	37·5	—	—	39·0	—	—	43·0	—	—	48·1	—	—	54·2	—	—	57·4
Alnwick Castle	41·7	33·6	37·7	42·6	34·3	38·5	44·6	35·1	39·9	47·8	37·7	42·8	53·5	42·1	47·8	60·1	48·1	54·1	63·7	51·7	57·7
Durham	41·7	31·9	36·8	43·5	32·9	38·2	46·7	33·4	40·1	51·6	36·2	43·9	57·1	40·3	48·7	65·0	46·5	55·8	68·7	50·3	59·5
Shields	43·0	34·2	38·6	43·8	35·1	39·5	45·9	35·2	40·6	49·0	38·6	43·8	54·4	42·9	48·7	60·6	48·7	54·7	64·1	52·2	58·2
Scarborough	42·4	34·7	38·6	43·5	35·5	39·5	46·0	36·0	41·0	49·5	39·6	44·6	55·3	43·6	49·5	61·4	49·8	55·6	65·6	53·2	59·4
York	42·7	32·5	37·6	44·6	33·9	39·3	48·1	34·0	41·1	53·5	37·7	45·6	59·6	42·2	50·9	66·1	48·4	57·3	68·7	51·9	60·3
Spurn Head	41·7	34·5	38·1	42·3	35·9	39·1	44·7	36·6	40·7	48·4	40·3	44·4	54·3	45·1	49·7	60·4	51·4	55·9	65·1	55·2	60·2
Hillington	42·1	31·8	37·0	44·2	33·4	38·8	49·0	33·7	41·4	54·3	37·4	45·9	60·7	41·6	51·2	67·7	47·6	57·7	71·1	51·3	61·2
Yarmouth	41·5	33·8	37·7	42·6	34·5	38·6	45·2	34·9	40·1	49·1	39·9	44·5	55·4	44·9	50·2	62·0	51·1	56·6	66·6	54·9	60·8
Geldeston	43·2	33·2	38·2	44·2	34·4	39·3	48·4	34·7	41·6	53·0	38·3	45·7	59·4	42·5	51·0	65·7	48·6	57·2	70·0	52·3	61·2
Cambridge	43·3	31·7	37·5	45·5	32·8	39·2	50·2	33·0	41·6	55·8	37·3	46·6	62·0	42·0	52·0	68·6	48·5	58·6	71·9	52·2	62·1
Rothamsted	41·9	32·2	37·1	43·7	33·5	38·6	48·2	33·6	40·9	53·8	37·1	45·5	59·9	41·6	50·8	66·6	48·2	57·4	70·0	51·5	60·8
Bawtry	42·4	32·3	37·4	44·8	34·0	39·4	48·2	34·1	41·2	54·4	37·5	46·0	60·7	41·7	51·2	67·1	48·1	57·6	70·2	51·3	60·8
Loughborough	43·0	32·3	37·7	45·3	33·9	39·6	49·5	34·2	41·9	55·1	38·1	46·6	61·7	42·6	52·2	68·6	49·0	58·8	71·5	52·6	62·1
Cheadle	41·0	32·2	36·6	42·6	33·2	37·9	46·2	33·8	40·0	51·8	37·1	44·5	57·4	41·5	49·5	63·3	47·5	55·4	65·7	51·1	58·4
Churchstoke	43·1	32·6	37·9	44·4	33·8	39·1	47·2	33·5	40·4	52·4	36·2	44·3	58·4	40·4	49·4	64·7	46·6	55·7	67·1	49·8	58·5
Hereford	44·0	33·2	38·6	45·8	34·5	40·2	49·5	35·0	42·3	54·5	38·1	46·3	61·3	42·5	51·9	67·8	48·7	58·3	70·1	51·6	60·9
Cirencester	42·6	32·3	37·5	44·1	33·2	38·7	47·7	33·5	40·6	53·5	36·9	45·2	59·8	41·4	50·6	66·2	47·2	56·7	68·8	50·9	59·9
Oxford	43·1	33·6	38·4	45·0	34·9	40·0	49·0	34·9	42·0	54·0	38·9	46·5	60·6	43·4	52·0	66·9	49·5	58·2	69·6	53·4	61·5
London	44·1	33·8	39·0	45·8	35·1	40·5	50·0	35·4	42·7	56·0	39·7	47·9	62·3	44·4	53·4	69·1	50·6	59·9	72·4	54·0	63·2
Strathfield Turgiss	43·3	32·2	37·8	45·5	34·0	39·8	50·2	34·0	42·1	56·0	37·6	46·8	62·6	41·7	52·2	68·8	48·1	58·5	72·1	51·6	61·9
Dover	43·5	35·8	39·7	44·4	36·1	40·3	46·4	36·9	41·7	51·1	41·5	46·3	57·0	46·7	51·9	63·0	52·5	57·8	66·8	56·3	61·6
Hastings	43·8	35·9	39·9	44·7	36·4	40·6	48·5	37·0	42·8	53·7	41·0	47·4	59·7	45·3	52·5	65·3	51·3	58·3	68·7	54·9	61·8
Southampton	44·3	35·1	39·7	46·0	36·3	41·2	49·9	36·5	43·2	55·3	40·2	47·8	61·4	44·6	53·0	67·3	50·8	59·1	70·4	54·2	62·3
Hurst Castle	45·0	36·3	40·7	45·7	36·7	41·2	47·8	37·2	42·5	52·1	41·0	46·6	58·6	45·7	52·2	64·2	51·9	58·1	67·8	55·5	61·7
Laudale	—	—	40·2	—	—	40·3	—	—	41·1	—	—	45·5	—	—	49·9	—	—	54·8	—	—	57·3
Glasgow	42·6	34·2	38·4	43·3	35·0	39·2	45·4	35·2	40·3	51·0	38·3	44·7	56·9	42·7	49·8	62·8	47·9	55·4	64·5	51·0	57·8
Ardrossan	44·2	36·3	40·3	44·6	36·3	40·5	46·3	36·3	41·3	51·5	39·5	45·5	56·5	43·9	50·2	62·0	49·5	55·8	63·5	51·8	58·2
Glenlee	—	—	37·2	—	—	38·3	—	—	39·4	—	—	43·8	—	—	48·8	—	—	54·7	—	—	57·2
Douglas	44·4	36·6	40·5	44·9	36·9	40·9	46·6	36·6	41·6	51·2	39·1	45·2	56·6	43·0	49·8	62·1	48·0	55·1	63·8	51·2	57·5
Stonyhurst	42·4	33·2	37·8	44·0	34·2	39·1	46·9	34·3	40·6	52·9	37·6	45·3	58·8	42·1	50·5	64·9	48·0	56·5	66·8	51·2	59·0
Blackpool	42·9	33·5	38·2	44·2	34·9	39·6	46·8	35·4	41·1	53·0	38·3	45·7	58·3	42·8	50·6	64·0	48·8	56·4	66·2	53·2	59·7
Manchester	42·7	32·9	37·8	44·2	33·6	38·9	47·4	34·5	41·0	53·1	37·8	45·5	58·6	41·9	50·3	65·1	48·0	56·6	67·1	51·1	59·1
Liverpool	43·5	35·2	39·4	44·5	36·2	40·4	47·0	36·8	41·9	52·6	40·4	46·5	58·0	45·0	51·5	63·8	50·9	57·4	65·9	54·2	60·1
Llandudno	45·9	37·0	41·5	46·4	37·4	41·9	48·4	37·7	43·1	53·1	40·6	46·9	58·3	44·9	51·6	64·1	50·7	57·4	66·6	53·9	60·3
Holyhead	45·6	38·7	42·2	45·5	38·7	42·1	47·2	38·9	43·1	51·4	42·0	46·7	56·2	46·2	51·2	61·6	51·5	56·6	63·8	54·3	59·1
Pembroke	45·5	39·6	42·6	45·5	39·4	42·5	46·6	39·1	42·9	50·4	41·9	46·2	55·0	45·9	50·5	60·3	51·5	55·9	62·5	54·8	58·7
Cullompton	45·2	34·4	39·8	46·2	35·3	40·8	49·8	35·3	42·6	54·4	38·3	46·4	60·5	42·2	51·4	66·9	48·4	57·7	69·4	51·4	60·4
Falmouth	47·1	40·4	43·8	47·4	40·7	44·1	48·4	40·3	44·4	51·8	43·1	47·5	56·9	46·9	51·9	62·6	52·2	57·4	65·3	55·1	60·2
Plymouth	46·9	37·3	42·1	47·9	37·9	42·9	50·2	38·1	44·2	54·9	41·8	48·4	60·7	46·5	53·6	66·1	52·4	59·3	67·8	55·3	61·6
Prawle Point	46·2	37·6	41·9	46·8	38·1	42·5	48·1	37·7	42·9	51·9	40·7	46·3	56·6	45·3	51·0	61·5	50·5	56·0	64·5	53·7	59·1
Londonderry	44·8	35·2	40·0	46·4	35·9	41·2	48·8	36·1	42·5	54·1	39·2	46·7	59·6	43·2	51·4	64·9	48·7	56·8	66·0	51·3	58·7
Mullaghmore	46·1	38·0	42·1	46·6	38·6	42·6	47·9	38·4	43·2	51·9	42·3	47·1	56·7	46·3	51·5	61·1	51·4	56·3	62·9	54·0	58·5
Markree Castle	45·0	34·1	39·6	46·3	35·0	40·7	48·8	35·1	42·0	53·7	37·8	45·8	57·6	41·6	49·6	62·8	47·1	55·0	64·7	49·9	57·3
Brookeborough	43·5	33·3	38·4	45·1	34·3	39·7	47·2	34·3	40·8	52·5	37·5	45·0	57·9	41·6	49·8	63·3	47·5	55·4	64·6	50·3	57·5
Armagh	43·3	34·4	38·9	44·8	35·3	40·1	47·0	35·3	41·2	52·1	38·3	45·2	57·8	42·9	50·4	63·4	48·6	56·0	65·1	51·4	58·2
Donaghadee	44·4	36·1	40·3	45·5	36·9	41·2	47·2	37·1	42·2	51·0	40·0	45·5	56·0	44·2	50·1	61·2	49·3	55·3	63·2	51·8	57·1
Dublin	46·0	37·3	41·7	46·9	38·1	42·5	48·8	38·2	43·5	53·0	41·0	47·0	58·5	45·2	51·9	64·1	50·8	57·5	66·4	53·7	60·1
Parsonstown	45·6	34·2	39·9	46·9	35·6	41·3	49·8	35·0	42·4	54·6	38·0	46·3	59·5	42·7	51·1	64·5	48·5	56·5	66·4	51·5	59·0
Roche's Point	47·7	39·5	43·6	48·4	39·6	44·0	49·7	39·6	44·7	53·7	42·1	47·9	58·9	46·2	52·6	64·5	51·1	57·8	66·1	53·2	59·7
Valencia	49·5	40·4	45·0	49·7	40·7	45·2	51·1	40·2	45·7	53·9	42·8	48·4	58·1	46·3	52·2	62·2	51·1	56·7	64·0	53·6	58·8
Scilly (St. Mary's)	48·8	42·9	45·9	48·9	42·8	45·9	49·5	42·5	46·0	52·1	44·7	48·4	56·3	48·2	52·3	61·3	53·0	57·2	64·4	56·2	60·3
Jersey	45·8	38·3	42·1	46·9	39·3	43·1	49·5	39·9	44·7	54·2	43·5	48·9	59·4	47·2	53·3	64·6	52·5	58·6	68·3	56·2	62·3

Note.—When the records available have not extended over the whole of the period 1871 to 1890, the following rules have bee
(1.) Where the observations available have not covered a period of 11 years or more, they have been neglected for th
(2.) When the observations have covered a period of 11 years or more (with the exception of Cullompton), the mean

The "Mean" values for Lairg, Glencarron, Fort Augustus, Fort William, Braemar, Ochtertyre, Marchmont, Laudale, and Glenle
The values for Stowell, Newton Reigny, Llandovery, Arlington, Malin Head, Belmullet, Edgeworthstown, Kilkenny, Waterfor

the DAILY MAXIMUM and MINIMUM TEMPERATURES, and of the MAXIMUM and MINIMUM COMBINED, for EACH MONTH and for the extending over the 20 Years 1871–90.

August.			September.			October.			November.			December.			Annuals.			Limits of Years the Actual Observations for which have been Employed.	Number of Years.	STATIONS.
Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.			
°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°			
57·7	48·4	53·1	55·0	46·1	50·6	49·8	41·6	45·7	45·6	37·8	41·7	42·6	35·2	38·9	48·9	40·3	44·6	1871–1890	20	Sumburgh Head.
59·8	48·8	54·3	56·3	45·8	51·1	51·0	40·5	45·8	46·2	37·0	41·6	43·1	34·2	38·7	50·7	40·3	45·5	„ „	20	Stornoway.
61·1	48·3	54·7	57·7	45·5	51·6	51·7	40·5	46·1	46·1	36·1	41·1	42·2	32·7	37·5	51·1	39·6	45·4	1872–1890	19	Wick.
—	—	55·1	—	—	51·4	—	—	45·6	—	—	39·6	—	—	35·4	—	—	44·8	—	—	Lairg.
—	—	54·6	—	—	50·9	—	—	45·1	—	—	40·0	—	—	37·1	—	—	44·9	—	—	Glencarron.
—	—	56·3	—	—	52·6	—	—	46·2	—	—	40·8	—	—	37·7	—	—	46·2	—	—	Fort Augustus.
—	—	56·7	—	—	53·1	—	—	47·5	—	—	41·6	—	—	39·2	—	—	47·0	—	—	Fort William.
63·4	50·3	56·9	59·2	46·5	52·9	51·9	40·8	46·4	45·3	35·7	40·5	41·9	32·8	37·4	52·2	40·4	46·3	1871–1890	20	Nairn.
63·1	50·1	56·6	59·2	46·7	53·0	52·5	41·4	47·0	46·2	36·5	41·4	41·9	32·6	37·3	51·9	40·5	46·3	„ „	20	Aberdeen.
—	—	53·9	—	—	49·6	—	—	43·4	—	—	37·8	—	—	34·2	—	—	43·3	—	—	Braemar.
—	—	56·9	—	—	53·0	—	—	46·1	—	—	40·2	—	—	36·0	—	—	45·9	—	—	Ochtertyre.
65·7	51·3	58·5	61·9	47·5	54·7	54·7	41·8	48·3	48·1	37·0	42·6	44·0	33·7	38·9	54·4	41·1	47·8	1871–1890	20	Leith.
—	—	56·4	—	—	52·5	—	—	45·6	—	—	40·2	—	—	36·2	—	—	45·5	—	—	Marchmont.
62·8	51·2	57·0	58·6	47·6	53·1	52·0	42·3	47·2	46·0	37·5	41·8	41·6	33·7	37·6	51·3	41·2	46·3	1871–1890	20	Alnwick Castle.
67·0	49·9	58·5	61·6	46·4	54·0	53·6	40·7	47·2	46·3	35·7	41·0	41·6	32·0	36·8	53·7	39·7	46·7	„ „	20	Durham.
63·6	51·9	57·8	59·8	48·8	54·3	53·2	42·7	48·0	47·3	37·9	42·6	42·9	33·9	38·4	52·3	41·8	47·1	„ „	20	Shields.
64·2	52·9	58·6	59·8	49·9	54·9	53·1	44·4	48·8	47·0	39·1	43·1	42·4	34·8	38·6	52·5	42·8	47·7	1872–1890	19	Scarborough.
67·9	51·3	59·6	62·9	47·7	55·3	54·5	41·4	48·0	47·5	36·4	42·0	42·3	32·3	37·3	54·9	40·8	47·9	1871–1890	20	York.
64·3	55·0	59·7	60·4	52·7	56·6	53·3	45·7	49·5	46·8	40·2	43·5	42·4	35·3	38·9	52·0	44·0	48·0	1880–1890	11	Spurn Head.
70·1	50·9	60·5	64·5	47·4	56·0	55·6	41·3	48·5	47·5	36·3	41·9	41·6	31·7	36·7	55·7	40·4	48·1	1871–1890	20	Hillington.
66·3	54·8	60·6	62·1	51·4	56·8	54·3	44·6	49·5	47·5	39·0	43·3	41·9	33·7	37·8	52·9	43·1	48·0	1872–1890	19	Yarmouth.
69·4	51·9	60·7	64·5	49·0	56·8	56·2	42·7	49·5	48·6	37·7	43·2	42·8	32·8	37·8	55·5	41·5	48·5	1880–1890	11	Geldeston.
71·3	51·8	61·6	65·6	48·1	56·9	56·5	41·0	48·8	48·6	35·8	42·2	42·8	31·6	37·2	56·8	40·5	48·7	1871–1890	20	Cambridge.
69·2	51·3	60·3	63·7	47·4	55·6	54·8	40·9	47·9	47·5	36·1	41·8	42·1	32·6	37·4	55·1	40·5	47·8	1872–1890	19	Rothamsted.
68·9	50·7	59·8	63·9	46·9	55·4	54·7	40·7	47·7	47·6	36·2	41·9	42·2	32·1	37·2	55·4	40·5	48·0	1880–1890	11	Bawtry.
70·4	51·8	61·1	65·0	47·8	56·4	55·7	41·1	48·4	48·0	36·6	42·3	42·7	32·2	37·5	56·4	41·0	48·7	1871–1890	20	Loughborough.
65·3	50·3	57·8	60·6	47·2	53·9	52·5	40·8	46·7	45·8	36·1	41·0	40·7	32·1	36·4	52·7	40·2	46·5	1875–1890	16	Cheadle.
66·9	49·6	58·3	61·8	46·1	54·0	53·8	40·6	47·2	47·2	36·1	41·7	42·8	32·5	37·7	54·2	39·8	47·0	1876–1890	15	Churchstoke.
69·9	51·1	60·5	64·2	47·3	55·8	55·4	41·3	48·4	48·7	37·4	43·1	43·6	33·0	38·3	56·2	41·1	48·7	„ „	15	Hereford.
68·4	49·5	59·0	63·1	46·9	55·0	54·2	40·8	47·5	47·0	36·0	41·5	42·6	31·7	37·2	54·8	40·0	47·4	1878–1890	13	Cirencester.
69·8	53·0	61·2	64·0	48·9	56·5	55·5	42·2	48·9	48·2	37·6	42·9	42·9	33·5	38·2	55·7	42·0	48·9	1871–1890	20	Oxford.
71·3	53·5	62·7	66·4	49·6	58·0	56·7	42·7	49·7	49·3	38·0	43·7	44·0	33·9	39·0	57·3	42·6	50·0	„ „	20	London.
71·5	51·5	61·5	65·8	47·2	56·5	56·8	40·8	48·8	48·8	36·4	42·6	43·1	32·2	37·7	57·0	40·6	48·8	„ „	20	Strathfield Turgiss.
67·2	56·7	62·0	63·4	52·9	58·2	56·1	46·2	51·2	49·3	40·6	45·0	44·3	35·9	40·1	54·4	44·8	49·6	1872–1890	19	Dover.
69·0	55·5	62·3	65·0	52·3	58·7	56·8	45·8	51·3	49·6	40·5	45·1	44·1	35·9	40·0	55·7	44·3	50·1	1871–1890	20	Hastings.
70·2	53·9	62·1	65·3	50·4	57·9	57·1	43·8	50·5	49·8	39·1	44·5	44·5	35·0	39·8	56·8	43·3	50·1	„ „	20	Southampton.
68·1	55·9	62·0	64·3	52·1	58·2	57·1	45·8	51·5	50·5	40·6	45·6	45·6	36·3	41·0	55·6	44·6	50·1	1874–1890	17	Hurst Castle.
—	—	56·9	—	—	53·4	—	—	47·2	—	—	42·2	—	—	39·8	—	—	47·4	—	—	Laudale.
63·3	50·5	56·9	58·9	47·0	53·0	52·1	41·7	46·9	45·9	37·0	41·5	42·2	33·6	37·9	52·4	41·2	46·8	1871–1890	20	Glasgow.
63·6	52·8	58·2	59·6	49·4	54·5	53·7	43·7	48·7	47·8	39·1	43·5	44·5	35·9	40·2	53·2	43·0	48·1	1872–1890	19	Ardrossan.
—	—	56·5	—	—	52·7	—	—	46·2	—	—	40·5	—	—	37·1	—	—	46·0	—	—	Glenlee.
63·3	51·1	56·2	60·1	48·0	54·1	54·0	43·2	48·6	48·6	39·8	44·2	45·6	36·6	41·1	53·4	42·5	48·0	1878–1890	13	Douglas.
66·2	51·0	58·6	61·7	47·5	54·6	53·6	41·8	47·7	47·3	37·0	42·2	42·4	32·7	37·6	54·0	40·9	47·5	1871–1890	20	Stonyhurst.
66·1	52·6	59·4	60·7	49·2	55·0	54·3	43·3	48·8	47·5	38·3	42·9	43·0	34·5	38·8	53·9	42·1	48·0	1880–1890	11	Blackpool.
66·8	51·0	58·9	62·1	47·6	54·9	54·2	41·7	48·0	47·3	36·9	42·1	42·2	32·6	37·4	54·2	40·8	47·5	1871–78 & 1882–90	17	Manchester.
65·8	54·1	60·0	61·2	50·8	56·0	53·8	44·7	49·3	47·8	39·6	43·7	43·5	35·6	39·6	54·0	43·6	48·8	1871–1890	20	Liverpool.
66·4	54·0	60·2	62·3	51·1	56·7	55·4	45·6	50·5	49·7	40·9	45·3	45·8	37·4	41·6	55·2	44·3	49·8	„ „	20	Llandudno.
64·1	54·8	59·5	60·7	52·6	56·7	54·7	47·3	51·0	49·7	42·9	46·3	46·4	39·1	42·8	53·9	45·6	49·8	1872–1890	19	Holyhead.
63·2	55·6	59·4	60·1	53·0	56·6	54·9	48·0	51·5	50·1	43·8	47·0	46·8	40·3	43·6	53·4	46·1	49·8	„ „	19	Pembroke.
69·0	50·4	59·7	64·3	47·5	55·9	56·5	42·2	49·4	49·8	38·6	44·2	44·8	33·8	39·3	56·4	41·5	49·0	1882–1890	9	Cullompton.
63·3	55·6	60·5	61·5	53·0	57·3	55·7	47·9	51·8	51·1	44·1	47·6	47·5	40·6	44·1	55·1	46·7	50·9	1871–1890	20	Falmouth.
68·1	55·2	61·7	63·8	51·5	57·7	57·4	45·2	51·3	51·5	41·2	46·4	47·1	37·0	42·1	56·9	45·0	51·0	„ „	20	Plymouth.
65·3	54·4	59·9	62·4	52·2	57·3	56·7	46·2	51·5	51·1	41·9	46·5	47·0	38·2	42·6	54·8	44·7	49·8	1879–1890	12	Prawle Point.
65·5	51·2	58·3	61·1	47·3	54·2	54·0	42·3	48·2	47·9	37·8	42·9	44·4	34·2	39·3	54·8	41·9	48·4	„ „	12	Londonderry.
63·3	53·8	58·6	60·2	50·9	55·6	54·2	45·7	50·0	49·6	41·2	45·4	46·5	37·8	42·2	53·9	44·9	49·4	„ „	12	Mullaghmore.
64·5	49·7	57·1	60·7	46·0	53·4	54·4	40·9	47·7	48·6	36·8	42·7	44·3	32·8	38·6	54·3	40·6	47·5	1875–1890	16	Markree Castle.
64·3	49·6	57·0	59·8	45·5	52·7	53·0	40·2	46·6	46·8	35·9	41·4	42·7	31·7	37·2	53·4	40·1	46·8	1879–1890	12	Brookeborough.
64·5	51·3	57·9	59·6	47·8	53·7	52·7	41·9	47·3	46·6	37·2	41·9	42·5	33·3	37·9	53·3	41·5	47·4	1871–1890	20	Armagh.
62·2	52·2	57·2	59·6	49·2	54·4	53·6	43·6	48·6	48·3	39·2	43·8	45·8	36·2	41·0	53·2	43·0	48·1	1873–1890	18	Donaghadee.
65·6	53·3	59·5	61·2	49·8	55·5	54·6	44·4	49·5	49·3	40·3	44·8	45·2	36·4	40·8	55·0	44·0	49·5	1871–1890	20	Dublin.
66·0	51·4	58·7	61·5	47·4	54·5	54·8	41·0	47·9	49·1	37·1	43·1	44·7	33·1	38·9	55·3	41·3	48·3	1872–1890	19	Parsonstown.
66·1	53·8	60·0	61·7	51·0	56·4	56·0	46·1	51·1	51·1	42·0	46·6	47·9	38·9	43·4	56·0	45·3	50·7	„ „	19	Roche's Point.
64·7	54·1	59·4	61·8	51·5	56·7	56·6	46·8	51·7	52·3	43·0	47·7	49·7	40·0	44·9	56·1	45·9	51·0	1871–1890	20	Valencia.
64·9	57·0	61·0	61·8	54·7	58·3	56·6	50·2	53·4	52·4	46·7	49·6	49·5	43·4	46·5	55·5	48·5	52·1	„ „	20	Scilly (St. Mary's).
68·8	57·1	63·0	65·4	54·8	60·1	58·2	48·6	53·4	51·9	44·1	48·0	47·3	39·3	43·3	56·7	46·7	51·7	„ „	20	Jersey.

observed for purposes of interpolation :—
present.
have been reduced to their approximate value for the whole period by comparison with the values at adjacent stations.

are supplied by the Scottish Meteorological Society, who have the means of "Max." and "Min." in course of preparation.
Killarney, and Foynes are not given, the observations being insufficient in point of duration to furnish proper averages.

TABLE II.—Showing, for the Stations included in the Weekly Weather Reports and Monthly Summaries, the Mean Rainfall for each Month and for the whole Year, derived from Observations extending over the 25 Years 1866 to 1890.

(Issued in continuation of those published in Appendix II, to the Monthly Weather Report, 1885.)

Stations.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Annual.	Limits of Years of Actual Observation.	Number of Years.
	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.		
Sumburgh Head	3·72	3·19	2·79	2·07	1·72	1·98	2·27	3·16	3·32	4·27	4·16	4·25	36·90	1871-1890	20
Stornoway	5·30	3·86	3·79	2·65	2·61	2·85	3·02	3·67	4·10	5·04	4·70	5·63	47·22	1855-1890	36
Wick	2·05	2·04	2·02	1·68	1·69	1·74	2·34	2·57	2·53	3·02	2·93	3·10	27·71	1866-1890	25
Lairg	3·50	2·98	2·96	2·26	2·15	2·40	2·95	2·80	3·07	4·07	3·82	3·95	36·91	—	—
Glencarron	10·05	6·75	6·25	4·26	4·62	5·27	6·10	6·60	6·81	8·89	9·72	9·55	84·87	—	—
Fort Augustus	4·63	3·73	2·97	2·04	2·09	2·20	3·14	3·05	3·78	4·10	4·28	4·71	40·72	—	—
Fort William	9·93	7·95	6·00	3·54	3·62	4·04	5·37	5·70	6·70	7·87	7·77	9·16	77·74	—	—
Nairn	1·99	1·48	1·68	1·26	1·61	1·70	2·59	2·75	2·58	2·38	2·29	1·95	24·26	1866-1890	25
Aberdeen	2·31	2·35	2·33	2·16	1·99	1·77	2·78	3·03	2·97	2·87	3·14	3·24	30·94	" "	25
Braemar	3·10	2·95	2·49	2·36	2·26	2·39	2·91	3·74	3·45	3·96	3·89	2·98	36·48	—	—
Ochtertyre	5·20	3·74	2·79	2·34	2·45	2·72	3·36	3·49	3·61	4·25	4·35	4·17	42·47	—	—
Leith	1·93	1·45	1·41	1·57	1·67	1·80	2·85	2·56	2·34	1·97	2·20	1·86	23·61	1866-1890	25
Marchmont	2·74	2·32	2·47	2·41	2·36	2·51	3·49	3·46	3·33	3·32	3·57	3·15	35·13	—	—
Alnwick Castle	2·11	2·09	2·35	2·28	2·16	1·86	2·92	3·05	2·92	2·86	3·33	3·15	31·08	1866-1890	25
Durham	2·04	1·60	2·16	2·12	2·05	1·90	2·98	2·77	2·43	2·91	2·96	2·95	28·87	" "	25
Shields	1·75	1·50	1·75	1·80	1·69	1·71	2·66	2·85	2·50	2·48	2·61	2·57	25·87	" "	25
Scarborough	1·94	1·71	1·89	1·95	1·95	1·91	2·78	2·67	2·78	3·07	3·02	2·83	28·50	" "	25
York	1·87	1·70	1·73	1·75	1·85	2·17	2·70	2·54	2·70	2·60	2·19	2·28	26·08	" "	25
Spurn Head	1·35	1·36	1·22	1·45	1·57	1·54	1·74	1·86	2·02	2·27	2·40	2·14	20·92	1880-1890	11
Hillington	1·91	1·80	1·66	1·75	1·85	2·17	2·97	2·72	2·76	2·61	2·71	2·43	27·34	1866-1890	25
Yarmouth	1·95	1·82	1·82	1·70	1·86	1·88	2·85	2·15	2·91	2·92	3·06	2·66	27·58	" "	25
Geldeston	1·58	1·57	1·57	1·52	1·71	1·63	2·66	1·89	2·62	2·62	2·72	2·20	24·29	" "	25
Cambridge	1·54	1·46	1·40	1·69	1·90	2·23	2·42	2·19	2·26	2·27	2·01	1·88	23·25	" "	25
Rothamsted	2·62	2·06	1·73	2·13	2·19	2·23	2·79	2·42	2·76	2·93	2·71	2·43	29·00	" "	25
Bawtry	1·90	1·56	1·71	1·68	2·06	2·26	2·76	2·40	2·47	2·75	2·15	2·26	25·96	1866-75 and 1881-90	20
Loughborough	2·04	1·78	1·64	1·78	2·09	2·22	2·34	2·53	2·76	2·80	2·24	2·24	26·46	1872-1890	19
Stamford (Ketton Hall)	1·93	1·72	1·45	1·92	2·43	1·93	2·72	2·26	3·01	2·94	2·66	2·33	27·30	1880-1890	11
Cheadle	2·69	2·47	2·31	2·11	2·39	2·89	3·13	3·56	3·31	3·55	3·19	3·13	34·73	1866-1890	25
Churchstoke	2·86	2·52	2·01	1·86	2·16	2·16	2·66	2·71	2·78	3·43	3·52	3·07	31·74	1876-1890	15
Hereford	2·53	2·69	1·74	1·79	2·09	2·14	2·38	2·42	2·79	2·78	2·56	2·36	27·67	1866-1890	25
Cirencester	3·17	2·50	2·09	2·13	2·21	2·35	3·05	3·04	3·19	3·03	3·03	2·83	32·62	" "	25
Oxford	2·26	1·92	1·59	1·78	1·95	2·21	2·58	2·24	2·66	2·56	2·31	2·10	26·16	" "	25
London	2·12	1·73	1·49	1·84	1·86	2·11	2·38	2·21	2·35	2·57	2·23	2·10	24·99	" "	25
Strathfield Turgiss	2·50	1·99	1·56	1·84	1·79	1·99	2·36	2·13	2·55	2·65	2·55	2·14	26·05	" "	25
Dover	2·58	1·95	1·83	1·77	1·79	1·59	1·95	2·04	2·64	3·22	3·48	3·00	27·84	" "	25
Hastings	2·87	2·04	1·94	2·02	1·81	1·66	2·22	2·38	2·74	3·60	3·30	2·94	29·52	" "	25
Southampton	3·34	2·52	2·02	2·13	2·03	1·89	2·66	2·62	3·04	3·23	2·96	3·11	31·55	" "	25
Hurst Castle	2·94	2·25	1·83	1·83	1·77	1·92	2·20	2·26	3·01	3·26	3·01	2·78	29·06	" "	25
Laudale	**9·00**	**7·34**	**6·59**	**3·98**	**3·94**	**4·84**	**5·57**	**5·24**	**6·78**	**7·83**	**9·12**	**9·34**	**79·57**	1876-1890	15
Glasgow	4·23	3·34	2·48	2·19	2·39	2·70	3·54	3·77	3·93	3·78	3·79	4·04	40·20	1866-1890	25
Ardrossan	4·25	3·04	2·44	2·14	2·34	2·49	2·91	3·78	3·67	3·87	3·88	3·73	38·54	" "	25
Glenlee	7·87	4·82	3·91	2·91	2·97	3·22	4·28	4·40	5·15	5·53	6·25	6·19	57·50	—	—
Douglas	4·71	3·43	2·85	2·34	2·17	2·15	3·05	3·57	3·73	4·15	4·76	4·52	41·43	1866-1890	25
Newton Reigny	3·85	2·80	2·22	1·88	2·04	2·08	3·09	3·08	3·32	3·59	3·52	3·40	34·87	" "	25
Stonyhurst	4·18	3·43	3·44	2·40	2·63	3·25	4·54	4·71	5·00	5·11	4·63	4·60	47·92	" "	25
Blackpool	3·02	2·27	2·25	1·70	2·05	2·10	3·24	3·06	3·75	4·11	3·51	3·20	34·26	" "	25
Manchester	3·24	2·17	2·46	1·98	2·41	3·01	3·86	3·53	3·96	4·08	3·60	3·55	37·85	" "	25
Liverpool	2·22	1·69	1·72	1·55	1·84	1·89	2·96	2·83	3·30	3·46	2·96	2·59	29·01	" "	25
Llandudno	2·84	2·18	1·99	1·81	1·81	1·82	2·66	2·67	3·08	3·76	3·51	3·13	31·26	" "	25
Holyhead	3·38	2·60	2·27	1·90	1·90	1·98	2·40	2·77	3·23	4·31	3·88	3·82	34·44	" "	25
Llandovery	5·38	4·06	3·60	2·79	2·83	2·96	3·98	4·56	4·78	5·43	5·11	5·32	50·80	" "	25
Pembroke	3·75	2·82	2·40	1·94	2·03	1·94	2·54	2·77	3·58	3·96	4·04	3·99	35·76	1871-1890	20
Arlington	**4·42**	**4·10**	**3·54**	**2·87**	**2·96**	**3·28**	**4·75**	**4·97**	**4·78**	**5·80**	**6·33**	**5·73**	**53·53**	1876-1890	15
Cullompton	3·43	2·95	2·47	2·58	2·18	2·34	2·97	2·75	3·45	3·89	3·53	3·52	36·06	1866-1890	25
Falmouth	5·48	4·06	3·41	3·03	2·76	2·55	3·28	3·58	4·70	5·39	5·43	5·25	48·92	1871-1890	20
Plymouth	4·02	2·98	2·63	2·41	2·05	2·02	2·83	2·79	3·77	3·73	3·62	3·84	36·69	1866-1890	25
Prawle Point	3·09	2·02	1·95	2·07	1·56	1·60	2·24	2·14	2·46	3·60	3·20	3·76	29·69	1879-1890	12
Londonderry	4·04	2·84	2·77	2·28	2·36	2·54	3·46	3·79	3·78	4·20	4·30	3·95	40·31	1866-1890	25
Mullaghmore	4·36	3·09	2·87	2·05	2·42	2·79	3·72	3·65	4·95	4·75	4·48	4·51	43·64	1876-1890	15
Markree Castle	3·45	2·77	2·49	2·46	2·03	3·04	3·28	3·60	3·25	3·88	3·53	3·47	37·25	1833-1863	31
Brookeborough	4·42	3·09	2·82	2·54	2·52	2·88	3·59	3·44	3·78	4·14	4·28	4·07	41·57	1880-1890	11
Armagh	2·90	2·21	2·10	2·14	2·04	2·13	3·19	2·91	3·05	2·99	2·89	2·80	31·45	1866-1890	25
Donaghadee	2·98	2·42	2·05	1·92	2·26	1·92	2·82	3·04	3·04	3·14	3·20	2·84	31·63	1873-1890	18
Edgeworthstown	**2·99**	**2·80**	**2·81**	**2·30**	**2·44**	**3·00**	**3·68**	**3·43**	**3·21**	**3·05**	**3·66**	**3·22**	**36·59**	1876-1890	15
Dublin	2·18	2·11	2·11	2·03	1·99	1·85	2·37	2·79	2·34	3·03	2·48	2·39	27·67	1866-1890	25
Parsonstown	3·12	2·20	2·33	2·04	2·24	2·39	2·96	3·38	3·16	3·16	2·83	3·04	32·85	" "	25
Kilkenny	3·52	2·71	2·18	2·15	2·00	2·21	2·52	3·35	3·00	3·11	2·67	3·17	32·59	" "	25
Waterford	4·61	3·54	3·01	2·63	2·39	2·42	2·92	3·57	3·53	3·99	3·77	4·14	40·52	" "	25
Roche's Point	5·50	4·43	3·71	3·24	3·14	3·13	3·29	3·62	4·08	4·09	4·62	4·95	47·80	1868-1890	23
Valencia	6·69	4·95	4·20	3·83	3·20	3·27	3·90	4·70	4·53	5·88	5·42	5·99	56·56	1866-1890	25
Scilly	3·73	2·71	2·40	2·27	1·73	1·84	2·46	2·39	3·41	3·70	3·72	4·02	34·38	1871-1890	20
Jersey	3·21	2·55	2·33	2·08	1·87	1·91	2·40	2·24	3·05	4·45	4·30	3·82	34·21	1866-1890	25

Note.—When the records available have not extended over the whole of the period 1866 to 1890 the following rules have been observed for purposes of interpolation:—

1. Where the observations available have not covered a period of eleven years or more, they have been rejected.
2. When the observations have covered a period of eleven years or more, the means have been either,—
   A. Reduced to their approximate value for the whole period by comparison with the values at adjacent stations; or
   B. When such comparison was impossible have been entered in the above Table without any correction whatever. In the latter case the values are printed in Egyptian type.

The values for Lairg, Glencarron, Fort Augustus, Fort William, Braemar, Ochtertyre, Marchmont, and Glenlee have been supplied by the Scottish Meteorological Society. The values for Stowell, Malin Head, Belmullet, Killarney, and Foynes are not given, the observations being insufficient in point of duration to furnish proper averages.

TABLE III.—SHOWING, for each MONTH and the WHOLE YEAR, certain STATIONS included in the WEEKLY WEATHER REPORTS and MONTHLY SUMMARIES, the Mean Numbers of HOURS of BRIGHT SUNSHINE, together with the PERCENTAGES of the POSSIBLE DURATION, in each instance, derived from Records extending over the 10 Years 1881–1890.

STATIONS.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annuals.		Limits of Years of Actual Observation.	Number of Years.
	Hours.	Per-centages.	Hours.	Per-centages.	Hours.	Per-centages.	Hours.	Per-centages.	Hours.	Per-centages.	Hours.	Per-centages.	Hours.	Per-centages.	Hours.	Per-centages.	Hours.	Per-centages.	Hours.	Per-centages.	Hours.	Per-centages.	Hours.	Per-centages.	Hours.	Per-centages.		
Stornoway	27·0	12	60·4	23	98·6	27	152·3	36	186·3	37	178·9	34	145·1	27	120·3	26	106·5	28	86·4	28	41·4	18	27·6	14	1230·8	26	1881-1890	10
Aberdeen	54·9	24	69·5	27	111·6	31	143·0	34	193·3	38	195·4	37	171·2	33	155·8	34	115·7	31	91·2	29	55·3	24	37·9	19	1394·3	30	„ „	10
Durham	42·4	18	60·6	23	104·3	29	112·7	27	177·1	36	162·0	32	162·8	32	152·7	33	106·2	28	83·4	26	55·2	23	41·5	19	1260·9	27	„ „	10
York	25·6	11	53·6	20	98·5	27	128·6	31	187·1	38	168·6	33	161·6	32	147·0	32	105·3	28	80·5	25	42·1	17	24·5	11	1223·0	25	„ „	10
Hillington	42·5	17	65·5	24	106·5	29	146·0	35	210·7	43	192·5	39	192·7	39	174·1	39	122·5	33	94·4	29	53·1	21	36·9	16	1437·4	30	„ „	10
Geldeston	53·1	21	69·4	25	124·1	34	163·4	40	229·1	48	211·8	43	206·6	42	191·7	43	147·6	39	111·3	34	64·6	25	46·4	20	1619·1	35	„ „	10
Cambridge	47·2	19	63·6	23	118·1	32	147·8	36	199·8	41	191·7	39	195·0	39	176·6	40	135·1	36	105·6	33	64·1	25	39·3	17	1483·3	32	„ „	10
Worksop	35·4	14	56·1	21	98·1	27	122·7	30	174·6	36	156·6	31	159·9	32	148·7	33	110·2	29	82·9	26	50·2	20	31·9	14	1227·3	26	„ „	10
Thurcaston	32·6	13	52·1	19	86·5	24	115·4	28	175·7	36	158·9	32	163·7	33	157·0	35	107·7	29	83·1	26	50·9	20	23·2	10	1206·8	25	„ „	10
Churchstoke	43·9	18	61·4	23	105·2	29	135·7	33	186·0	39	177·5	36	174·9	35	166·8	37	124·9	33	88·8	28	50·6	20	37·5	16	1353·2	29	„ „	10
Cirencester	44·5	18	68·0	25	110·2	30	142·2	35	196·9	41	187·4	38	183·3	37	179·7	40	120·3	32	97·6	30	53·7	21	38·6	17	1422·4	30	„ „	10
Oxford	41·3	16	61·6	22	111·6	31	141·2	34	192·4	40	187·3	38	189·2	38	182·6	41	133·9	36	101·5	31	55·4	22	37·4	16	1435·4	30	„ „	10
London	24·4	9	38·9	14	85·1	23	124·3	30	184·8	39	173·8	36	175·1	36	164·3	37	112·3	30	77·2	24	37·7	14	19·4	8	1217·3	25	„ „	10
Hastings	56·1	22	77·7	28	135·7	37	166·6	41	237·3	50	219·1	45	222·4	45	203·9	46	158·7	42	122·3	38	67·4	26	54·7	23	1711·9	37	1883-1890	8
Southampton	45·5	18	67·0	24	126·2	35	162·6	40	210·6	44	204·2	42	206·5	42	202·9	46	149·8	40	112·3	34	56·8	22	46·3	19	1590·7	34	1881-1890	10
Glasgow	20·0	9	45·8	17	80·7	22	126·5	30	159·6	32	159·4	31	134·0	26	129·9	28	95·6	25	63·4	20	26·7	11	15·2	7	1056·8	22	„ „	10
Douglas	41·8	17	68·6	25	120·4	33	178·1	43	224·3	46	217·2	43	196·3	39	170·7	38	135·8	36	99·8	31	61·0	24	43·4	19	1557·4	33	„ „	10
Newton Reigny	41·3	17	54·5	20	100·4	28	140·5	34	202·3	41	191·7	38	168·2	33	141·1	31	123·5	33	79·9	25	44·9	18	25·9	12	1314·2	28	1883-1890	8
Stonyhurst	31·2	13	58·0	22	97·5	27	135·9	33	192·6	39	185·1	37	166·3	33	149·7	33	119·9	32	79·9	25	45·1	18	27·7	12	1288·9	27	1881-1890	10
Blackpool	31·4	13	59·6	22	93·6	26	144·1	34	201·0	41	189·1	37	178·6	35	158·9	35	118·6	32	82·3	26	44·6	18	25·8	12	1327·6	28	1882-1890	9
Llandudno	36·3	15	64·4	24	91·2	25	138·1	33	192·4	40	178·5	36	164·5	33	156·2	35	108·7	29	74·5	23	44·7	18	24·7	11	1274·2	27	1881-1890	10
Pembroke	49·4	20	73·9	27	129·8	36	182·9	44	215·3	45	233·5	47	202·1	41	201·3	45	142·5	38	99·3	31	59·3	23	46·2	20	1635·5	35	„ „	10
Callompton	36·2	14	63·1	23	119·2	33	145·4	35	192·9	40	193·7	40	177·1	36	183·8	41	133·9	36	92·6	28	48·0	18	33·9	14	1419·8	30	„ „	10
Falmouth	46·8	18	76·1	27	129·8	36	173·0	42	216·3	46	225·4	47	210·9	43	206·2	47	145·7	39	115·3	35	69·4	26	54·0	22	1668·9	36	„ „	10
Plymouth	43·4	17	74·6	27	131·4	36	169·1	41	206·7	44	202·5	42	192·2	40	194·8	44	147·5	40	103·3	32	57·2	22	51·4	21	1574·1	34	„ „	10
Markree Castle	42·2	17	59·4	22	101·3	28	149·7	36	186·8	38	153·3	31	128·9	26	127·8	28	93·6	25	84·4	26	53·9	22	36·4	16	1222·7	26	„ „	10
Armagh	42·1	17	60·4	22	93·1	26	139·0	33	184·5	38	171·1	34	138·8	27	118·4	26	103·3	28	77·8	24	56·7	23	35·3	16	1220·5	26	„ „	10
Dublin	55·0	22	68·5	25	114·9	32	162·1	39	212·7	44	184·9	37	160·4	32	161·6	36	128·4	34	100·2	31	70·9	28	48·9	21	1468·5	32	„ „	10
Parsonstown	50·2	20	66·7	25	113·6	31	159·9	39	188·0	39	174·6	35	147·1	29	145·4	32	117·2	31	91·4	28	63·0	25	44·4	19	1361·5	29	„ „	10
Valencia	55·7	22	73·2	27	132·6	36	169·5	41	209·7	44	197·8	40	157·5	32	161·3	36	122·2	33	98·7	30	60·1	23	45·1	19	1483·4	32	„ „	10
Jersey	68·1	25	87·1	31	149·1	41	187·6	46	243·1	52	233·7	49	230·4	48	242·9	55	175·4	47	124·9	38	65·4	24	57·1	23	1864·8	40	„ „	10

Note.—Where the records available have not extended over the whole period of 1881–1890, they have been reduced to their approximate values for the 10 years by comparison with those at adjacent stations.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 1]. *Third Series.* WEEK ENDING SATURDAY, 10TH JANUARY, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 2.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	50	9	38·5	28·2	33·6	5 below.	0	− 8	59	+26	0	− 7	59	+ 29
	1. SCOTLAND, EAST -	46	8	36·6	25·1	31·1	6 below.	0	− 8	76	+37	0	− 6	76	+ 35
	2. ENGLAND, N.E. - -	45	18	35·0	25·9	30·6	8 below.	0	− 7	80	+33	0	− 6	80	+ 43
	3. ENGLAND, EAST -	40	7	32·9	20·9	27·2	11 below.	0	− 8	104	+67	0	− 9	104	+ 61
	4. MIDLAND COUNTIES	41	15	34·6	23·4	29·2	9 below.	0	− 9	90	+43	0	−10	90	+ 46
	5. ENGLAND, SOUTH -	41	12	34·3	24·4	29·6	10 below.	0	−11	87	+55	0	−11	87	+ 58
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	45	16	38·2	28·1	33·3	6 below.	0	−11	61	+32	0	− 8	61	+ 31
	7. ENGLAND, N.W. -	45	14	36·0	27·7	32·0	7 below.	0	− 9	70	+40	0	− 9	70	+ 40
	8. ENGLAND, S.W. -	48	11	37·6	26·7	32·5	9 below.	0	−16	67	+45	0	−14	67	+ 48
	9. IRELAND, NORTH -	47	13	38·7	27·8	33·5	7 below.	0	−14	60	+34	0	−14	60	+ 37
	10. IRELAND, SOUTH -	48	15	40·5	27·8	34·4	8 below.	0	−20	53	+33	0	−20	53	+ 38
	— CHANNEL ISLANDS -	48	25	40·9	34·3	37·7	7 below.	0	−22	30	+21	0	−23	30	+ 21

Rainfall.

	DISTRICTS. (See p. 2.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	4	3	9 less.	4	− 1	0·3	− 0·9
	1. SCOTLAND, EAST -	2	2	5 less.	2	− 1	0·2	− 0·5
	2. ENGLAND, N.E. - -	3	2	3 less.	3	0	0·2	− 0·3
	3. ENGLAND, EAST -	4	3	2 less.	4	0	0·3	− 0·2
	4. MIDLAND COUNTIES-	2	1	5 less.	2	− 1	0·1	− 0·5
	5. ENGLAND, SOUTH -	2	1	5 less.	2	− 1	0·1	− 0·5
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	2	3	11 less.	2	− 3	0·3	− 1·1
	7. ENGLAND, N.W. - -	1	1	7 less.	1	− 3	0·1	− 0·7
	8. ENGLAND, S.W. - -	2	4	6 less.	2	− 2	0·4	− 0·6
	9. IRELAND, NORTH -	2	2	6 less.	2	− 3	0·2	− 0·6
	10. IRELAND, SOUTH -	2	4	6 less.	2	− 2	0·4	− 0·6
	— CHANNEL ISLANDS -	2	4	5 less.	2	− 3	0·4	− 0·5

Bright Sunshine.

	DISTRICTS. (See p. 2.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	9	+ 4	20	+ 8	9	+ 4	20	+10
	1. SCOTLAND, EAST -	10	0	21	0	10	0	21	0
	2. ENGLAND, N.E. - -	8	0	16	0	8	+ 2	16	+ 4
	3. ENGLAND, EAST -	17	+ 6	31	+12	17	+ 7	31	+13
	4. MIDLAND COUNTIES-	18	+ 9	34	+19	18	+ 9	34	+18
	5. ENGLAND, SOUTH -	20	+10	36	+19	20	+11	36	+19
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	14	+ 6	28	+15	14	+ 8	28	+16
	7. ENGLAND, N.W. - -	14	+ 6	26	+12	14	+ 7	26	+13
	8. ENGLAND, S.W. - -	23	+12	40	+23	23	+12	40	+19
	9. IRELAND, NORTH -	17	+ 8	33	+16	17	+ 7	33	+13
	10. IRELAND, SOUTH -	20	+ 8	37	+16	20	+ 7	37	+12
	— CHANNEL ISLANDS -	27	+13	46	+22	27	+10	46	+16

General Remarks.

Weather has continued very cold and wintry in all parts of the Kingdom, but the sky has been clearer than for some time past—especially in the west and south. In Ireland and Scotland the conditions have been rather variable, the frost having been at times interrupted by decided thaws and some rain.

Temperature has remained below the mean, the deficit having ranged from 5° to 6° over Scotland, from 7° to 8° over Ireland, and from 9° to 11° over the greater part of England. The highest of the maxima, which were recorded on the 4th at the English stations, but on the 10th elsewhere, varied from 50° in "Scotland N." to 40° in "England E." The lowest of the minima, which were registered on the 7th in most of the Irish and Scotch districts and on the 10th in most parts of England, varied from 7° in "England E." (at Geldeston), 8° in "Scotland E." (at Braemar), and 9° in "Scotland N." (at Lairg), to between 11° and 16° in most other districts, to 18° in "England N.E.," and to 25° in the "Channel Islands."

Rainfall has again been considerably less than the mean in all districts.

Bright Sunshine has been much more prevalent than for several weeks past, and has been in excess of the average for the time of year in nearly all districts. The percentage of the possible amount has varied from 46 in the "Channel Islands" and 40 in "England S.W." to 20 in "Scotland N." and 16 in "England N.E."

Barometer and Wind.—The distribution of pressure was generally anticyclonic, but some depressions advanced from time to time over our more western districts from the Atlantic. The wind was somewhat variable in direction, but over our southern districts it was generally light from the North-Eastward or Eastward, while in the west and north moderate breezes from between South-East and South-West occasionally prevailed. At the end of the week a Westerly current was spreading gradually over the Kingdom.

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III.—DATA from which the SUMMARY on page 1 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	47	28	41·0	33·1	37·3	− 1·9	0	33	7	0·50	−0·39	*	*	*	*
	Stornoway	50	26	40·6	31·0	36·0	− 3·1	0	42	5	0·35	−0·88	9·9	+ 4·7	22	+10
	Wick	45	20	38·7	28·0	33·6	− 4·3	0	59	4	0·27	−0·25	*	*	*	*
	Lairg ⚓	43	9	34·5	19·0	27·1	− 9·5	0	104	4	0·28	−0·54	*	*	*	*
	Glencarron ⚓												*	*	*	*
	Fort Augustus ⚓	42	25	38·2	27·9	33·3	− 5·4	0	61	0	—	−1·08	6·9	?	14	?
	Fort William ⚓	43	23	37·9	30·2	34·2	− 5·3	0	55	2	0·17	−2·02	11·0	?	23	?
1. SCOTLAND, E.	Nairn	46	24	38·7	28·1	33·6	− 4·0	0	59	1	0·01	−0·44	*	*	*	*
	Aberdeen	45	21	35·6	26·9	31·4	− 6·2	0	74	5	0·29	−0·29	14·9	+ 3·9	31	+18
	Braemar ⚓	37	8	33·8	18·6	26·5	− 8·2	0	109	2	0·05	−0·75	11·8†	? †	25†	?†
	Ochtertyre ⚓	41	18	37·4	23·9	30·9	− 5·8	0	78	2	0·26	−0·86	*	*	*	*
	Leith ⚓	43	21	38·1	28·6	33·5	− 5·7	0	60	0	—	−0·44	*	*	*	*
	Marchmont ⚓	40	18	36·1	24·3	30·4	− 5·8	0	81	4	0·28	−0·36	10·3	?	21	?
2. ENGLAND, N.E.	Alnwick Castle	41	19	34·9	22·1	28·8	− 9·1	0	92	2	0·08	−0·47	*	*	*	*
	Durham	40	18	34·6	24·3	29·7	− 7·5	0	86	2	0·20	−0·33	9·9	+ 0·3	19	+ 1
	Shields	45	22	37·1	26·6	32·1	− 6·5	0	69	2	0·19	−0·25	*	*	*	*
	Scarborough ℳ	41	26	34·8	29·2	32·1	− 6·6	0	69	4	0·17	−0·33	*	*	*	*
	York	40	18	33·6	24·4	29·2	− 9·5	0	90	3	0·08	−0·36	7·5	+ 1·5	14	+
	Spurn Head	39	27	34·7	28·7	31·8	− 6·5	0	71	4	0·18	−0·18	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	36	9	30·9	20·6	26·0	−11·2	0	112	4	0·39	−0·09	16·2	+ 6·5	31	+14
	Yarmouth	37	20	32·3	24·9	28·8	− 9·3	0	92	4	0·34	−0·16	*	*	*	*
	Geldeston	38	7	34·3	20·1	27·5	−10·3	0	102	5	0·35	−0·06	8·0	− 3·0	15	− 6
	Cambridge	40	15	33·7	19·6	26·9	−10·8	0	106	3	0·25	−0·13	20·7	+10·0	38	+19
	Rothamsted	38	10	33·5	19·2	26·6	−11·0	0	108	3	0·07	−0·52	21·0	?	39	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	38	18	? 34·9	? 22·6	? 29·0	? − 8·4	0	? 91	1	0·04	−0·42	*	*	*	*
	Loughborough	38	21	35·9	24·3	30·3	− 7·6	0	82	2	0·02	−0·46	*	*	*	*
	Stamford (Ketton Hall)	39	15	34·6	22·6	28·8	− 8·7	0	92	4	0·06	?	*	*	*	*
	Cheadle ℳ	37	22	33·3	25·3	29·4	− 7·5	0	88	2	0·21	−0·44	*	*	*	*
	Churchstoke ℳ															
	Hereford ℳ	41	16	35·6	23·9	30·0	− 8·7	0	84	1	0·13	−0·45	*	*	*	*
	Cirencester	41	17	34·4	22·1	28·5	− 9·2	0	95	0	—	−0·70	23·1	+13·2	43	+26
	Oxford	38	18	33·7	22·7	28·4	−10·3	0	95	1	0·03	−0·47	14·9	+ 6·1	28	+12
5. ENGLAND, S.	London	38	15	34·0	24·7	29·6	−10·0	0	87	2	0·05	−0·44	7·9†	+ 3·1†	14†	+ 5†
	Strathfield Turgiss ℳ	38	14	33·4	21·6	27·7	−10·3	0	100	0	—	−0·53	*	*	*	*
	Dungeness	39	12	33·3	24·6	29·1	−11·0	0	90	3	0·20	−0·41	*	*	*	*
	Hastings (St. Leonards)	39	20	34·4	26·2	30·5	− 9·6	0	81	2	0·23	−0·44	26·3	+13·9	47	+24
	Southampton	41	20	35·9	24·6	30·5	− 9·6	0	81	2	0·01	−0·74	25·8	+16·3	46	+28
	Hurst Castle	39	23	35·9	26·0	31·2	− 9·9	0	76	1	0·02	−0·66	*	*	*	*
	Stowell ℳ	38	18	33·5	23·2	28·6	− 9·9	0	94	1	0·05	?	? ‡	? †	? †	?†
6. SCOTLAND, W.	Laudale (Loch Sunart)	42	24	37·5	28·6	33·2	− 6·4	0	62	3	0·35	−1·74	*	*	*	*
	Glasgow	41	26	37·1	29·0	33·2	− 5·0	0	62	1	0·02	−0·93	9·1	+ 4·9	19	+11
	Ardrossan	44	26	40·3	30·3	35·5	− 4·9	0	46	2	0·16	−0·78	*	*	*	*
	Glenlee ⚓	41	16	36·3	24·7	30·7	− 6·9	0	79	2	0·53	−1·15	*	*	*	*
	Douglas (Isle of Man)	45	23	39·6	27·7	33·9	− 6·8	0	57	3	0·31	−0·75	18·8	+ 9·6	36	+19
7. ENGLAND, N.W.	Newton Reigny	39	14	34·3	23·1	28·9	− 8·3	0	92	0	—	−0·85	13·4	+ 5·2	26	+10
	Stonyhurst	40	18	35·1	26·7	31·1	− 6·9	0	76	1	0·08	−0·91	11·0	+ 4·6	21	+ 8
	Blackpool ℳ	41	20	35·8	27·2	31·7	− 6·7	0	72	1	0·01	−0·69	16·4	+ 9·9	32	+19
	Manchester	39	18	34·6	26·2	30·6	− 7·4	0	80	1	0·05	−0·70	*	*	*	*
	Liverpool Obsy. (Bidston)	40	26	35·9	28·9	32·5	− 8·1	0	67	1	0·03	−0·49	*	*	*	*
	Llandudno ℳ															
	Holyhead	45	27	40·4	34·1	37·4	− 5·2	0	32	3	0·55	−0·25	*	*	*	*
8. ENGLAND, S.W.	Llandovery	42	11	35·7	21·1	28·7	−11·9	0	93	1	0·09	−1·13	*	*	*	*
	Pembroke	45	25	40·0	31·1	35·7	− 7·4	0	44	3	0·70	−0·18	21·4	+11·2	40	+20
	Arlington (N. Devon)	41	19	34·4	26·4	30·6	− 9·1	0	80	1	0·17	−0·92	*	*	*	*
	Cullompton ℳ	44	14	36·3	23·1	30·0	−10·0	0	84	2	0·48	−0·30	21·2	+13·7	38	+24
	Falmouth	47	25	39·4	30·8	35·3	− 8·8	0	47	2	0·56	−0·67	25·9	+15·0	45	+26
	Plymouth	44	21	38·3	27·7	33·2	− 8·9	0	62	1	0·39	−0·50	22·0	+12·0	39	+22
	Prawle Point	48	23	39·0	29·1	34·3	− 7·9	0	54	2	0·11	−0·61	*	*	*	*
9. IRELAND, N.	Malin Head	44	30	38·9	33·7	36·4	− 3·7	0	39	1	0·03	?	*	*	*	*
	Londonderry	42	24	35·8	27·7	31·9	− 7·5	0	71	2	0·05	−0·86	*	*	*	*
	Mullaghmore	45	26	40·4	31·3	36·0	− 6·1	0	42	2	0·36	−0·44	*	*	*	*
	Belmullet	47	26	42·0	31·0	36·7	− 6·4	0	37	4	0·47	?	*	*	*	*
	Markree Castle	44	13	37·6	22·6	30·4	− 9·2	0	81	3	0·18	−0·61	10·1	+ 1·8	19	+ 2
	Brookeborough	45	14	38·0	23·6	31·1	− 7·1	0	76	1	0·18	−0·32	*	*	*	*
	Armagh	43	20	37·2	25·0	31·3	− 7·4	0	75	1	0·02	−0·63	24·3	+14·8	47	+30
	Donaghadee	46	25	41·9	32·0	37·2	− 3·2	0	34	3	0·06	−0·59	*	*	*	*
	Edgeworthstown	41	17	36·1	23·7	30·2	− 8·0	0	83	2	0·10	−0·60	*	*	*	*
10. IRELAND, S.	Dublin	43	24	39·8	30·7	35·4	− 6·2	0	46	1	0·01	−0·49	17·8	+ 6·1	34	+12
	Parsonstown	42	17	36·9	23·1	30·3	− 9·5	0	82	1	0·17	−0·53	13·9	+ 3·2	26	+ 6
	Kilkenny	42	15	38·3	23·6	31·3	− 9·9	0	75	1	0·15	−0·55	*	*	*	*
	Waterford	45	17	41·0	26·9	34·2	− 8·4	0	55	2	0·36	−0·61	*	*	*	*
	Roche's Point	46	27	42·9	30·4	36·9	− 6·7	3	43	2	0·41	−0·79	*	*	*	*
	Valencia	48	29	45·1	33·9	39·7	− 5·4	9	32	2	0·98	−0·50	27·0	+15·0	50	+29
	Killarney	44	17	41·0	24·8	33·2	−10·3	0	62	2	0·83	?	*	*	*	*
	Foynes	43	21	38·9	28·8	34·1	− 8·0	0	55	3	0·19	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	48	30	42·7	36·3	39·6	− 6·6	2	21	2	0·61	−0·26	*	*	*	*
	Jersey	48	25	39·0	32·3	35·8	− 6·8	0	43	2	0·10	−0·65	26·6	+12·4	46	+22

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

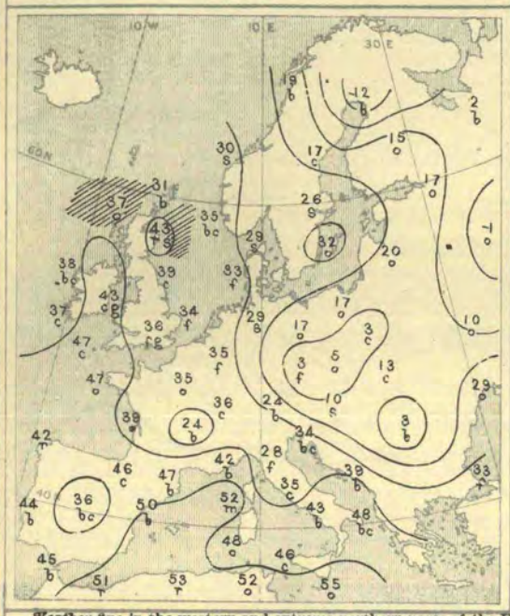
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 4th January.

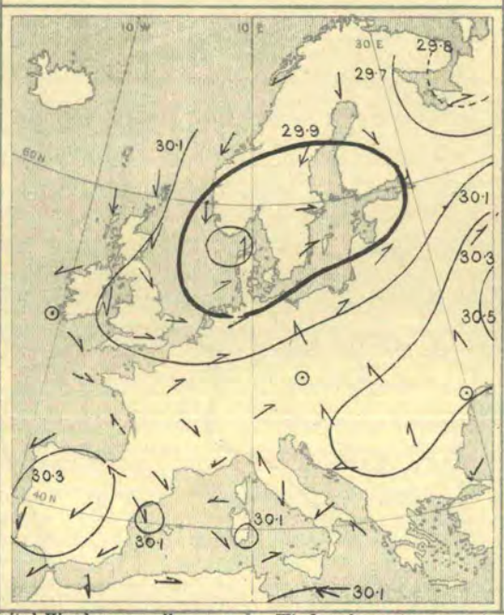
Temperature and Weather.

8 a.m.

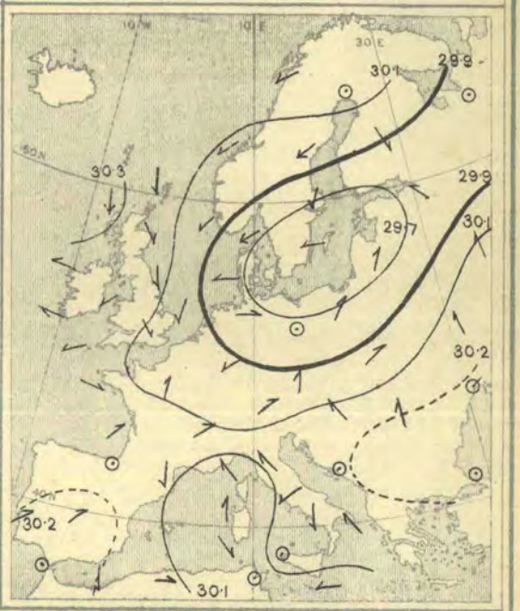


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine in the western and extreme northern parts of the United Kingdom, as well as over northern Russia, Spain, Italy, and the south of France. Cloudy or overcast elsewhere, with thick fog in the south-east of England and some parts of Germany, rain or sleet in Scotland, and snow at some of the Norwegian, Danish, and German stations. Snow falling later over the northern parts of the United Kingdom and rain in the east and south-east. Heavy general rainfall over Algeria and a considerable local fall at Leghorn.

Temperature highest, 55° at Malta, 53° at Algiers, 52° at Sanguinaire, La Calle, and 51° at Oran; above 45° at most of the Mediterranean stations, as well as over the Bay of Biscay and the extreme south-west of England. Lowest, −12° Fahr. at Haparanda, −7° at Uleaborg, −1° at Moscow, +2° at Archangel, and 8° at Warsaw, Prague, and Hermanstadt; below the freezing point over nearly the whole of northern, eastern, and central Europe, but a few degrees above it over England and the greater part of France. Rising later to between 37° and 40° over central and eastern England, and to above 50° in the south of France, beginning to fall again in Scotland.

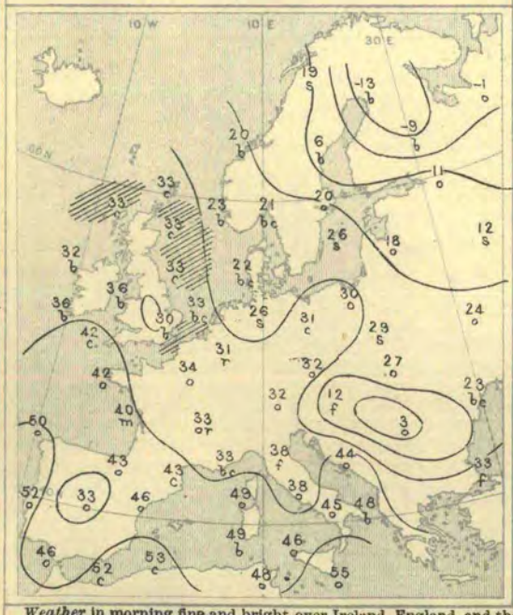
Wind moderate to strong from North or North-East over Scandinavia and the northern parts of the United Kingdom, light from North-West or West over the south of our Islands and from South-West over the Netherlands, Denmark, and the Baltic. Light from North-East over the greater part of southern Europe, but variable in south Germany and Austria. Subsequently falling light over the southern parts of the United Kingdom and veering Northwards; North-Easterly wind increasing at our north-eastern stations.

Barometer highest, (1) 30·5 ins. to 30·3 ins. over the southern half of Russia and Balkan Peninsula; (2) 30·3 ins. and more to 30·2 ins. over the Iberian Peninsula, France, and the Bay of Biscay; and (3) 30·2 ins. and more over the Hebrides and to the north-westward of Scotland generally. Lowest, 29·8 ins. to 29·7 ins. and less in a depression over Denmark and the Baltic, and in another system over northern Russia. Danish depression moving south-eastwards later; barometer rising over all our northern and north-western districts, falling over France and Germany.

Monday, 5th January.

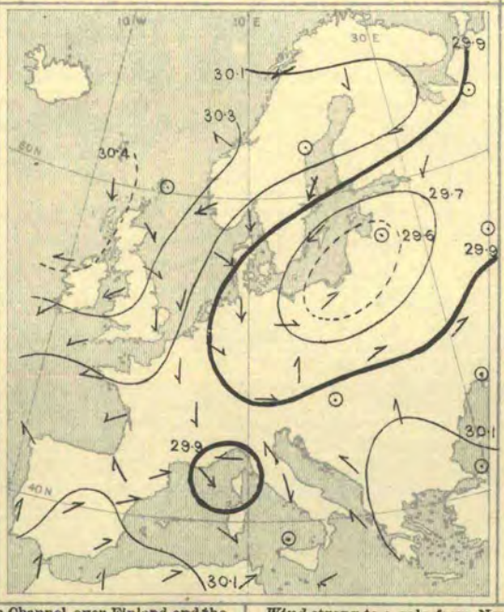
Temperature and Weather.

8 a.m.

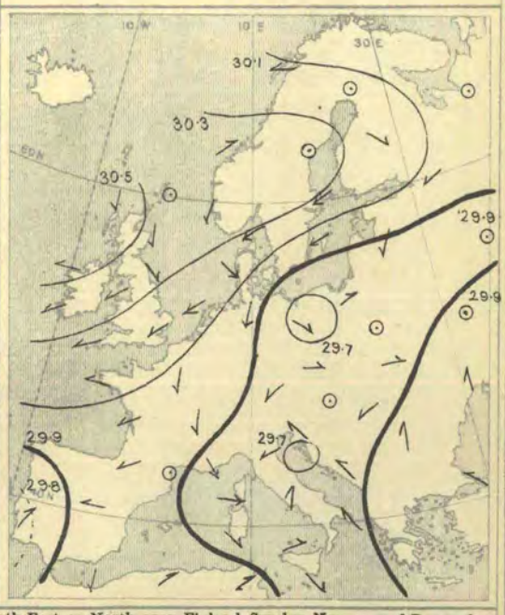


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over Ireland, England, and the Channel, over Finland and the Gulf of Bothnia, and at some of the French stations; dull, gloomy, and unsettled elsewhere, with snow showers in the east of Scotland, at Memel, and in Poland, rain in the north of Italy, the south of France, and at Brussels, fog at Prague. Snow at times in the north and east of our Islands during day, and also over Germany; heavy rain (1·2 ins.) at Lisbon and still more at Leghorn; moderate falls at some of the southern French stations and in Algeria.

Temperature falling again over our Islands and all over northern Europe, rising fast in the southern, south-eastern, and central countries. Readings, 50° or more over some extreme southern regions and in Portugal, and above 40° on Spanish coasts; below 40° all over our Islands and France, and still lower over northern and central Europe. Morning values, (1) −13° Fahr. at Haparanda, −9° at Knopio, +10° to 12° over Gulf of Finland and central Russia; (2) 1° at Buda Pesth, 3° at Hermanstadt, 12° at Vienna; (3) 26° at Parsonstown, 27° at Oxford, 28° at Cambridge, 30° at York, Loughborough, and in London. Cold all day; hard frost recurring over England at night and spreading south-eastwards to Continent.

Wind strong to a gale from North-East or North over Finland, Sweden, Norway, and Denmark, moderate Northerly over eastern half of Great Britain and North-Easterly in Ireland; Westerly to Southerly over Germany, Austria, and Spain, Easterly to Northerly in the south of France, very variable elsewhere. Becoming North-Easterly over England later, and freshening greatly on Norfolk and Suffolk coasts; strong winds and gales continuing over the Baltic and Eastern shores of the North Sea.

Barometer highest, 30·4 ins. and more to 30·2 ins. over the British Islands and the south and west of Scandinavia, 30·2 ins. to 30·1 ins. over Algeria and Spain, and also over southern Russia and the Balkan Peninsula. Lowest, 29·6 ins. and less in an elongated depression lying over the Baltic, the north-east of Prussia, and the Baltic Provinces of Russia, 29·9 ins. and less in a shallow depression over the Gulf of Genoa and Corsica. Rising over our Islands, France, and the North Sea all day.

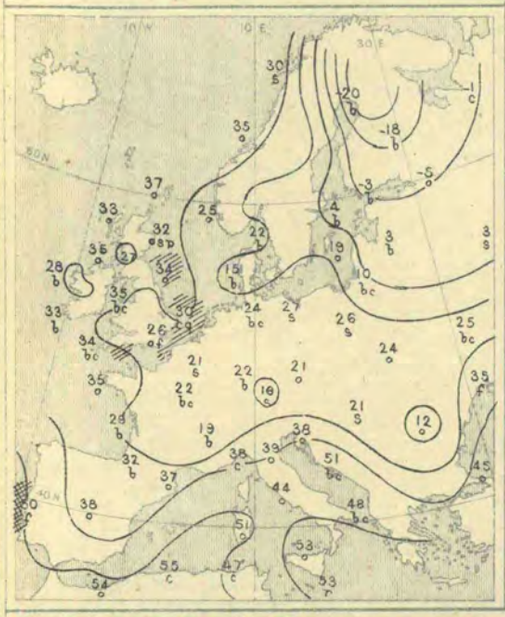
Judd & Cº Lith. 73 & 75, Farringdon Rd & Doctors' Commons

II.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 6th January.

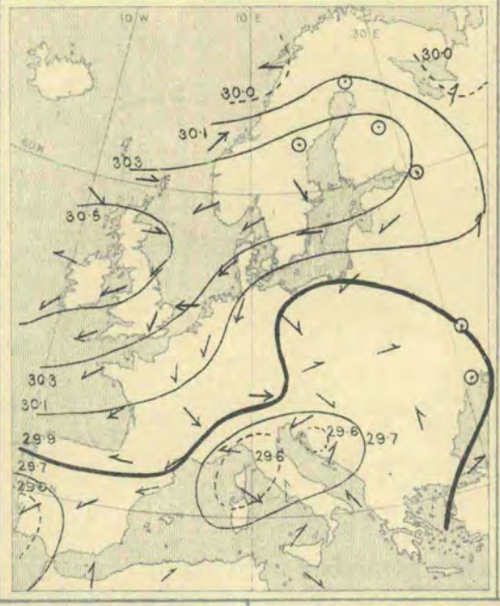
Temperature and Weather.

8 a.m.

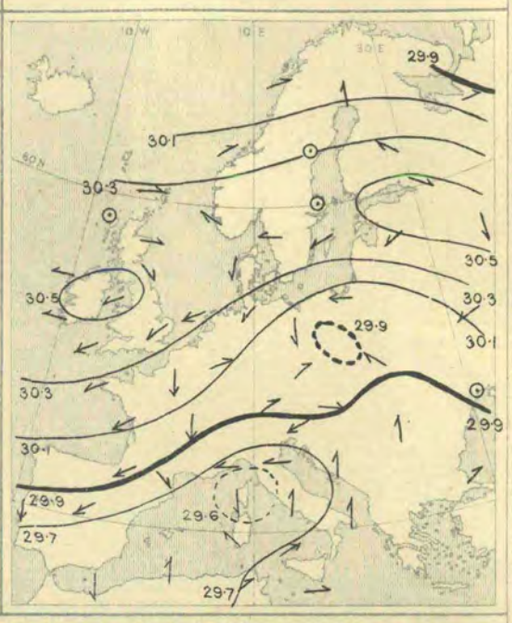


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over the greater part of our Islands and France, as well as over Sweden, Finland, and the Baltic Provinces, but slight dry snow in a few localities; dull and changeable elsewhere, with snow in many parts of central Europe, rain at some Mediterranean stations. Snow over Germany, the south of Russia, and at several of the eastern and southern stations in England later, but not in large quantities; cold fine weather continuing elsewhere.

Temperature very low generally—risen over Norway, fallen elsewhere; strong frost at the majority of the inland stations, but especially severe over northern and central Russia. Morning readings exceeding 50° at Lésina, Palermo, Malta, Cagliari, and some Algerian stations only, and exceeding 40° on most of the Mediterranean coasts and in Portugal; below 30° in most other places, 22° to 26° over central England, France, and Germany, 12° at Hermanstadt, 10° at Memel, 3° at Riga and Moscow, −5° Fahr. at St. Petersburg and Uleaborg, and −18° at Kuopio. No change of importance occurring later; very cold over the British Islands at night.

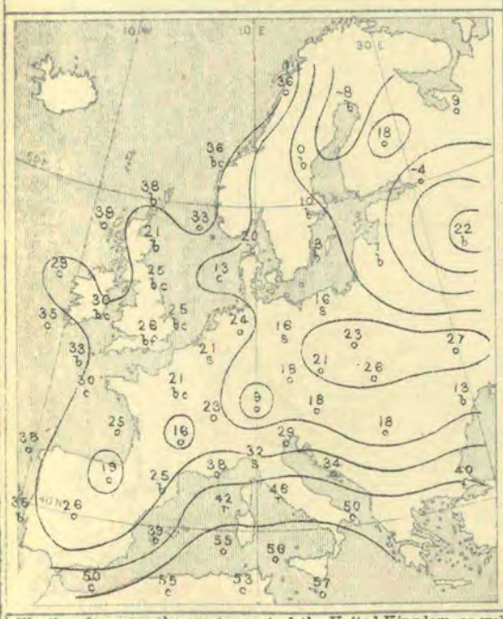
Wind Westerly to South-Westerly in the north of Scotland and north-west of Norway—strong at Christiansund, nearly calm over Ireland and the west and south of Scotland. North-Easterly in almost all other parts of Europe, but variable over the south-eastern countries and the Mediterranean. Fresh to a gale on the German coasts, strong over the southern parts of the North Sea as a whole, fresh to strong in the Channel. Moderate to strong cyclonic circulation reported over the Mediterranean. No important change later.

Barometer highest, 30·5 ins. and more in an anticyclone lying over all the western and northern parts of our Islands, and exceeding 30·4 ins. in a long ridge stretching thence across the North Sea to the southern parts of Norway, Sweden, and Finland. Lowest, 29·7 ins. to 29·5 ins. in a depression off the south-west coasts of Spain, and in another over the north-eastern part of the Mediterranean, 29·8 ins. and less in a secondary system over Hungary, and apparently about 29·9 ins. in others over the White Sea and the north-west of Norway. Falling a little at the northern and north-western stations later.

Wednesday, 7th January.

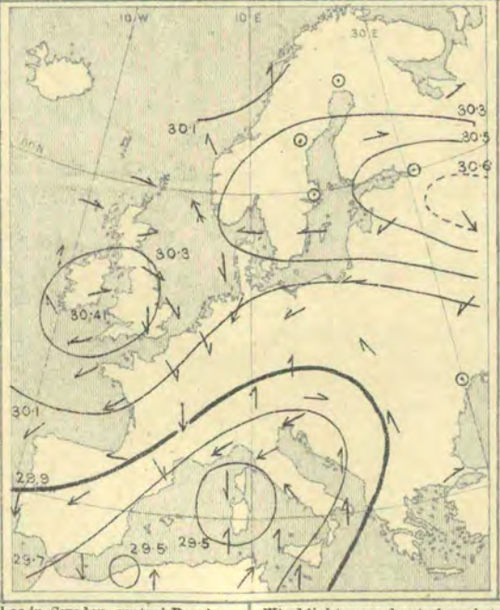
Temperature and Weather.

8 a.m.

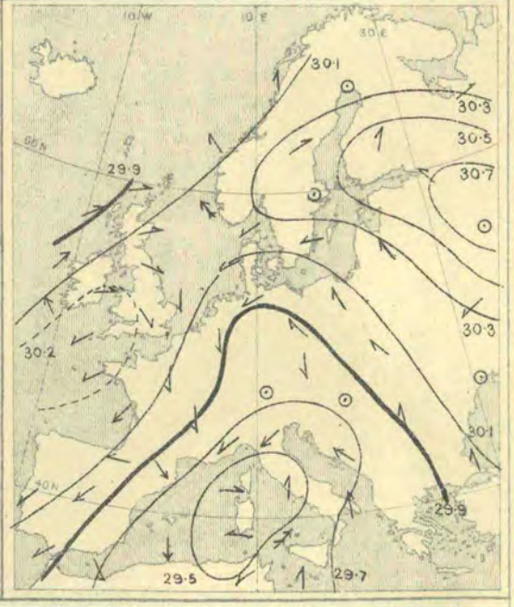


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine over the greater part of the United Kingdom, as well as in Sweden, central Russia, and the north of France, but snow falling at some of the English stations. Dull elsewhere, with snow in several parts of France, Germany, Austria, and northern Italy, and rain at Leghorn, Rome, and Sanguinaire. Considerable amounts of snow falling later in the east and south-east of England, and smaller quantities over northern Italy; rain setting in over Ireland at night. Thunderstorm, with heavy rain, occurring at Rome.

Temperature highest, 57° at Malta, 56° at Palermo, 55° at Cagliari and Algiers, and 54° at Nemours; above 50° over the central and southern parts of the Mediterranean generally, but below 40° on its northern shores. Lowest, −22° Fahr. at Moscow, −11° at Helsingfors, −8° at Haparanda, −4° at St. Petersburg, 0° (zero) at Hernösand, and +1° at Riga; below 20° at some of the English stations and below the freezing point in most parts of Europe, but several degrees above it in the Shetlands, Hebrides, and west of Norway. Daily maxima below 32° in several parts of England and France, and below 20° at some of the German stations.

Wind light or moderate from between North and East over the Baltic, Denmark, western Germany, the Netherlands, France, Spain, and the extreme south of England. South-Westerly to Westerly breezes reported over the northern and north-western parts of the United Kingdom, and South-Easterly winds in Norway, with a gale at Skudesnaes. Calm in Sweden, light and variable over Austria and Russia, moderate to fresh from the Southward in Algeria and the south of Italy. Strong Southerly winds setting in later in the extreme west and north-west of our Islands, with a gale in the south of Ireland at night. Gale from East reported at Trieste and from South at Palermo.

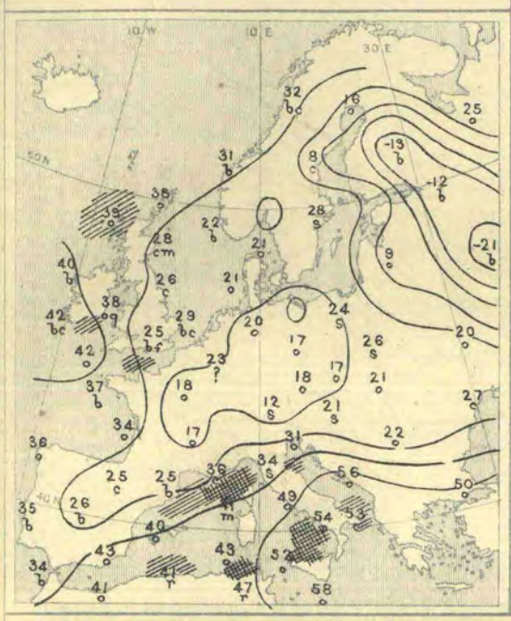
Barometer highest, 30·6 ins. and upwards over central Russia, 30·3 ins. to 30·4 ins. over the greater part of Ireland and England, the two systems being connected by a broad "col" extending across the North Sea, Scandinavia, and the Baltic. Lowest, 29·5 ins. and less in a well-marked depression lying over Corsica and Sardinia, as well as in a smaller system lying near Algiers. Brisk fall of barometer taking place later in the west and north of our Islands and high-pressure system over Ireland and England dispersing.

Judd & Co Lith 73 & 75, Farringdon Rd & Doctors Commons

Thursday, 8th January.

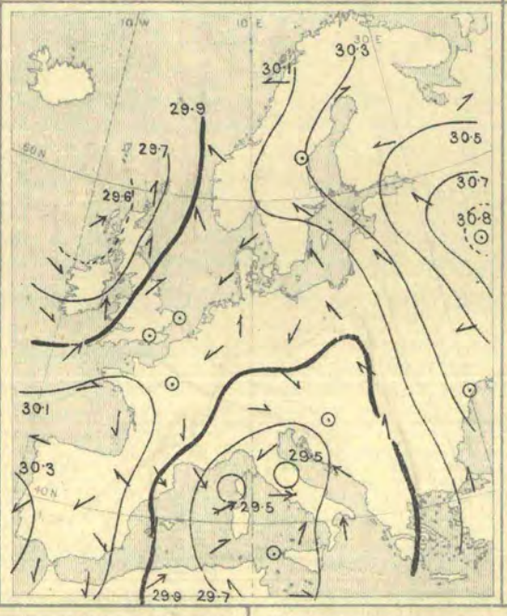
Temperature and Weather.

8 a.m.

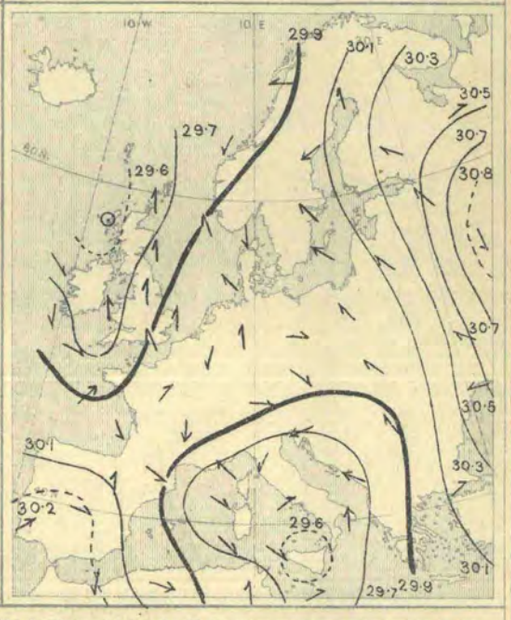


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine in the more eastern parts of Great Britain, as well as in Finland, Norway, the south of Ireland, and the greater part of France and Spain; dull elsewhere, with showers at some of our western stations, rain on the Algerian coasts, and snow in many parts of Scandinavia, Germany, Austria, and northern Italy, as well as in central Algeria. Rain or snow falling later in all the more western parts of the United Kingdom—heavily in the south-west of England; much rain over Algeria and in many parts of Italy.

Temperature highest, 58° at Malta, 56° at Lésina, 54° at Rome, 53° at Brindisi, and 52° at Palermo; above 45° over the central and southern parts of the Mediterranean, and above 40° in the south-west of our Islands. Lowest, −21° Fahr. at Moscow, −13° at Knopio, −12° at St. Petersburg, and +5° at Ulcaborg; below 20° in most parts of northern and central Europe—as low as 21° even at Toulon, considerably below the freezing point over England. Thermometer reaching 36° at Loughborough and 37° in London later but frost recurring at night.

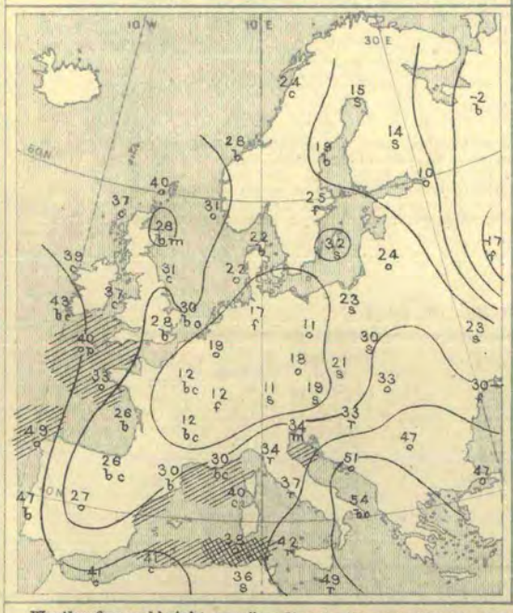
Wind moderate to strong from the Southward in nearly all the more western and northern parts of the United Kingdom, but light from the Westward or North-Westward in the south of Ireland, variable in the south-east of England, and also over the greater part of central Europe. Light or moderate from the South-Eastward over the Baltic and west of Norway, North-Easterly in Denmark and Spain. Strong cyclonic circulation reported over Italy, the south of France, and the adjacent parts of the Mediterranean. Southerly breezes setting in later over the east of England, but wind shifting to the North-Westward in the south-west.

Barometer highest, 30·8 ins. to 30·5 ins. and more in an anticyclone lying over central Russia, 30·3 ins. and upwards in another system off the Portuguese coasts. Lowest, 29·5 ins. to 29·8 ins. in a "V"-shaped depression lying over the west and north of our Islands, 29·6 ins. and less in a well-marked disturbance lying over Corsica, northern Italy, and the south of France. Former depression subsequently advancing slowly eastwards over the United Kingdom and tending to break up.

Friday, 9th January.

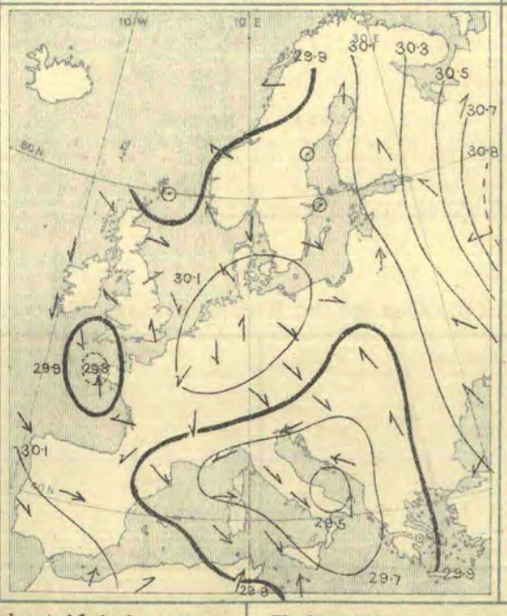
Temperature and Weather.

8 a.m.

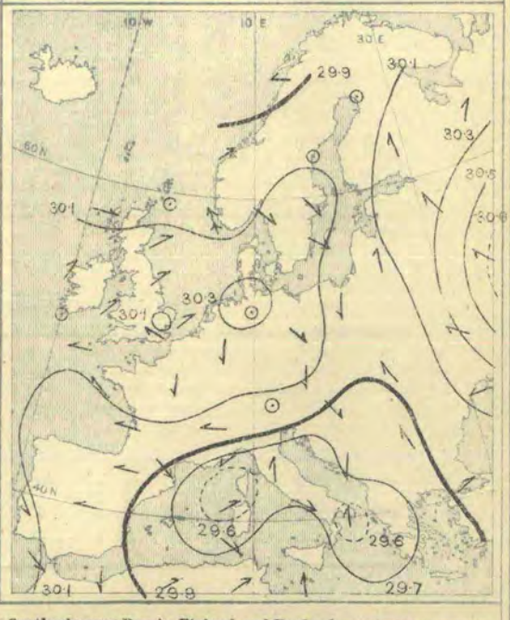


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine and bright over Scandinavia, the east of England, and west of Ireland, as well as on most parts of the Spanish coasts; dull elsewhere, with fog over the Netherlands and neighbouring parts of Germany; snow falling at many of the German, Austrian, and southern French stations, rain over the northern parts of the Mediterranean, and also about the mouth of the English Channel. Rain ceasing in latter district later; snow falling in some widely-separated localities (most in Austria), a great deal of rain over Algeria, and a considerable amount over southern Italy, Sicily, and Malta.

Temperature still very low; morning readings exceeding 50° on the shores of the Adriatic, and exceeding 40° on the southern shores of the Mediterranean and on the Atlantic coasts of Spain and Portugal only. Sharp frost over our inland districts and hard frost holding over the Continent. Lowest values (1) −17° Fahr. at Moscow, −2° at Archangel, +10° at St. Petersburg, 15° at Ulcaborg, and 19° at Hernösand; (2) 11° at Munich and Berlin, 12° at Swinemunde, Paris, and Lyons, 19° at Limoges. Very cold all day, and frost becoming severe again over England at night.

Wind mainly South-Easterly to Southerly over Russia, Finland, and England—moderate to strong on the eastern shores of the Baltic and at our own stations; mainly Northerly in Ireland and North-Westerly in Portugal. Cyclonic circulation of moderate to strong breezes over the Mediterranean and Adriatic; very light and variable winds elsewhere. Becoming very light and anticyclonic over the British Islands towards night, not much alteration elsewhere.

Barometer highest, 30·9 ins. to 30·1 ins. in a large anticyclone over Russia, and 30·1 ins. to 30·0 ins. in a secondary system over north Germany and the Netherlands. Lowest, 29·9 ins. and less over the Shetlands and off the north-west of Norway, 29·8 ins. and less in a small depression at the mouth of the English Channel, 29·6 ins. to 29·5 ins. and less in a complex depression over the Adriatic and eastern parts of the Mediterranean. Depression near Brest dispersing later and new anticyclone forming immediately over our Islands.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons.

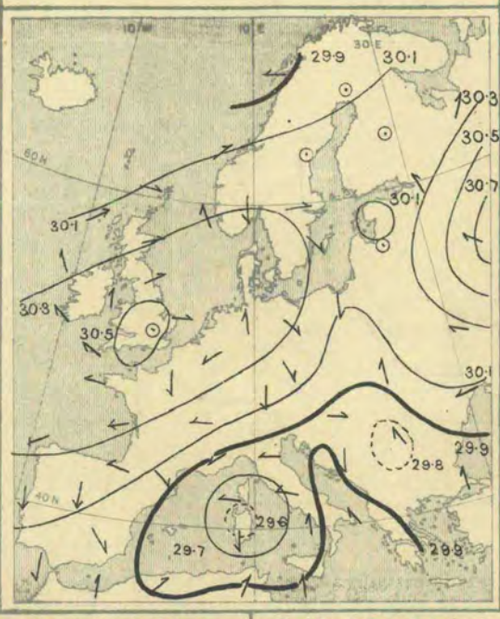
Saturday, 10th January.

Temperature and Weather.

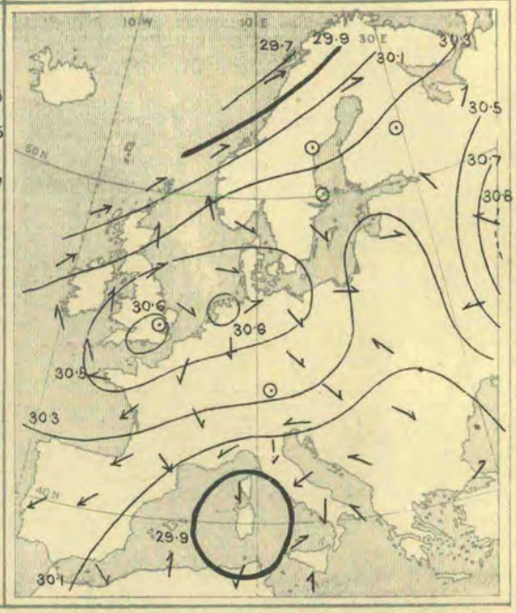
8 a.m.

Barometer and Wind.

8 a.m.



6 p.m.



Weather fine and bright over the Spanish Peninsula and the western and central parts of France, as well as over Ireland, many parts of Scotland, and in some parts of Norway; dull elsewhere, foggy in London and at Cuxhaven. Snow falling over the Baltic Provinces and in western Austria, rain at Naples, Malta, and Algiers. Much rain over Algeria and central Italy later, smaller quantities in the north of our Islands; fog prevalent in London and many other localities.

Temperature changing very irregularly; fallen fast over England, and also in many parts of Italy. Morning readings as low as (1) −1° Fahr. at Moscow and +14° to 25° at the other Russian stations; (2) 7° at Münster, 11° at Munich, and 17° to 21° over the greater part of France; (3) 15° at Dungeness and in London, 19° at Cambridge, 22° at Oxford, 24° at Loughborough, and 26° at Parsonstown. Highest, 42° to 44° in the Shetlands, Hebrides, and Portugal, 42° at Valencia Island and Scilly, 50° at Malta, and 52° at Brindisi only. Rising decidedly in Ireland, Scotland, and Norway later, remaining very low over England and the Continent.

Wind South-Easterly to Southerly, moderate, on our western coasts, variable from the Southward in the west of Norway, light Northerly over the Baltic and Germany, as well as over the Spanish Peninsula. A cyclonic circulation of light to moderate breezes prevalent over the Mediterranean, Southerly wind increasing over Ireland and the west of Scotland later, and strong South-Westerly winds setting in over Norway.

Barometer highest, 30·7 ins. to 30·3 ins. in anticyclone over central Russia, 30·5 ins. and more to 30·3 ins. in another over Ireland, England, France, the North Sea, Denmark, and north Germany. Lowest, 29·8 ins. to 29·6 ins. over the Mediterranean, 30·1 ins. to 29·9 ins. over the northern half of Norway. Falling decidedly on our extreme north-western coasts and in the north of Norway later, rising over England and the Continent.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

In the course of this week hard frost prevailed continuously over nearly the whole of Europe, and almost continuously over the inland parts, and some of the coasts, of the British Islands. As a rule the distribution of pressure has been anticyclonic—the first system presenting itself off the north-western coasts of the British Islands on Sunday, and spreading thence in south-easterly and easterly directions till it covered the United Kingdom, the North Sea, Baltic, and central Russia on Tuesday. Two distinct maxima then appeared, one, of great intensity, over Russia, the other over the British Islands. In these regions the frost was severe, while over the Mediterranean on the one hand, and off our extreme north-western coasts on the other, cyclonic systems were observed. On Thursday a "V"-shaped secondary system produced a temporary thaw over the western and northern parts of the British Islands, but this rapidly gave way, and, as the Southerly winds which it had brought with it died down, hard frost again became general, and continued in force when the week closed.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 2.

Stations.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	Stations.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	3·6	?	7	?	THURCASTON	21·1	+14·6	40	+27
OSWALDKIRK	7·3	?	14	?	TORQUAY	23·0	?	40	?
WORKSOP	12·3	+4·9	23	+9					

NOTE.—Attention is again called to the new columns which have now been added to the Tables on the first and second pages of this Report; also to the improved Averages with which the current values for Temperature, Accumulated Heat, Rainfall, and Bright Sunshine are compared. A new station (Stamford) has been added to District 4; Torquay is now reporting Sunshine values.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S. SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, AND 21, DREWY STREET, GLASGOW; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. VIII. No. 2]. *Third Series.* WEEK ENDING SATURDAY, 17TH JANUARY, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 8.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	53	26	44·1	36·2	40·3	2 above.	6	− 2	23	−10	6	− 8	83*	+ 15
	1. SCOTLAND, EAST -	54	21	42·8	33·4	38·3	1 above.	2	− 6	32	− 8	2	−13	108	+ 26
	2. ENGLAND, N.E. - -	50	17	40·1	30·4	35·4	3 below.	0	− 7	46	− 2	0	−13	126	+ 48
	3. ENGLAND, EAST -	41	7	35·2	23·9	29·8	8 below.	0	− 7	85	+41	0	−16	189	+ 99
	4. MIDLAND COUNTIES	44	10	37·9	25·7	32·1	6 below.	0	− 9	69	+26	0	−18	159	+ 67
	5. ENGLAND, SOUTH -	43	11	36·7	25·4	31·2	8 below.	0	−10	76	+43	0	−21	163	+ 96
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	53	20	44·8	36·2	40·7	1 above.	8	− 3	24	− 6	8	−10	85	+ 22
	7. ENGLAND, N.W. -	47	16	39·8	31·7	35·9	3 below.	0	− 8	43	+12	0	−17	113	+ 50
	8. ENGLAND, S.W. -	47	17	40·9	28·4	34·9	7 below.	0	−15	50	+27	0	−28	117	+ 72
	9. IRELAND, NORTH -	50	26	44·7	36·0	40·5	0 (average)	8	− 6	24	− 2	8	−18	84	+ 34
	10. IRELAND, SOUTH -	50	23	44·6	33·3	39·2	3 below.	7	−13	34	+14	7	−32	87	+ 49
	— CHANNEL ISLANDS -	47	26	43·4	34·7	39·3	5 below.	4	−17	28	+18	4	−39	58	+ 38

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 8.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	6	6	7 less.	10	0	0·9	− 1·5	3	− 3	5	− 7	12	0	12	0
	1. SCOTLAND, EAST -	2	2	5 less.	4	− 3	0·4	− 0·9	6	− 5	11	−13	16	− 2	16	− 2
	2. ENGLAND, N.E. - -	4	3	1 less.	7	0	0·5	− 0·4	7	0	14	0	15	+ 3	14	+ 2
	3. ENGLAND, EAST -	5	3	2 less.	9	+ 2	0·6	− 0·3	11	0	19	0	28	+ 9	26	+ 9
	4. MIDLAND COUNTIES-	2	1	5 less.	4	− 3	0·2	− 1·0	14	+ 5	24	+ 9	31*	+15	28	+13
	5. ENGLAND, SOUTH -	3	3	4 less.	5	− 2	0·4	− 0·8	16	+ 6	29	+12	35*	+17	31	+15
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	3	3	11 less.	5	− 4	0·6	− 2·1	13	+ 5	24	+11	27	+14	26	+13
	7. ENGLAND, N.W. - -	1	less than ½	7 less.	2	− 6	0·1	− 1·4	14	+ 6	27	+12	28	+15	26	+13
	8. ENGLAND, S.W. - -	1	1	9 less.	3	− 5	0·5	− 1·4	25	+14	42	+25	48	+27	42	+23
	9. IRELAND, NORTH -	4	1	6 less.	6	− 3	0·3	− 1·3	11	+ 1	19	+ 2	29*	+11	27	+10
	10. IRELAND, SOUTH -	3	1	9 less.	5	− 3	0·5	− 1·4	20	+ 8	36	+15	40	+16	37	+15
	— CHANNEL ISLANDS -	3	2	6 less.	5	− 4	0·6	− 1·0	28	+13	46	+21	55	+23	47	+20

General Remarks.

Weather over the United Kingdom has been more variable than for some weeks past. Over England it continued frosty and very cold, excepting on Monday and Tuesday, and occasional showers of snow fell; over Ireland the cold has been much less severe and the weather generally dry; over Scotland the air has been rather mild and rain has fallen at times. Some bright intervals have been experienced generally, especially in the south and south-west.

Temperature has again been much below the mean over the greater part of England, the deficit having ranged in most instances from 6° to 8°; in "Ireland S." and over northern England the deficit has not been more than 3°, while in Scotland the average for the week has been 1° or 2° in excess of the normal. The highest of the maxima were recorded either on the 12th or 13th, and varied from 54° in "Scotland E." to 41° in "England E." On the 11th the daily maxima were very low in the south-eastern counties, the thermometer at some stations not exceeding 25°. The lowest of the minima, which were recorded either at the beginning or end of the period, ranged from 7° in "England E.," 10° in the "Midland Counties," and 11° in "England S.," to between 16° and 21° in most other districts, and to 26° in "Scotland N.," "Ireland N.," and the "Channel Islands."

Rainfall has been less than the mean in all districts; over the western parts of the Kingdom the fall has been very slight. Heavy snow fell at Dungeness on Saturday.

Bright Sunshine has not differed very materially from the mean, but has been in excess over the southern and western districts. The percentage of the possible duration ranged from 46 in the "Channel Islands" and 42 in "England S.W." to 29 in "England S.," 11 in "Scotland E.," and 5 in "Scotland N."

Barometer and Wind.—The distribution of pressure has been anticyclonic and no depressions have appeared immediately over us. Some systems have, however, passed eastwards off the north of Scotland, and on Thursday a shallow disturbance moved south-south-eastwards over the east coasts of England. Moderate Westerly breezes have prevailed in the north-west and west and light Northerly to North-Easterly winds elsewhere.

* This value has been altered owing to the receipt of further information.

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III.—DATA from which the SUMMARY on page 7 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	48	30	42·6	36·7	39·8	+ 0·2	2	20	7	0·36	+0·01	*	*	*	*
	Stornoway	52	31	46·4	38·7	42·7	+ 3·6	19	9	6	0·25	−0·95	4·3	− 1·7	9	− 3
	Wick	53	30	43·7	35·1	39·6	+ 1·8	5	27	5	0·26	−0·22	*	*	*	*
	Lairg ℌ	53	26	43·0	34·5	38·9	+ 2·3	3	28	6	0·37	−0·43	*	*	*	*
	Glencarron ℌ	49	28	42·7	34·8	38·9	+ 1·4	2	27	6	1·85	−0·43	*	*	*	*
	Fort Augustus ℌ	52	30	45·0	36·6	41·0	+ 2·2	8	22	4	0·26	−0·82	0·5	?	1	?
	Fort William ℌ	51	32	45·1	37·3	41·4	+ 1·8	9	20	5	0·52	−1·71	3·0	?	6	?
1. SCOTLAND, E.	Nairn	53	28	44·1	36·3	40·4	+ 2·8	6	23	4	0·10	−0·35	*	*	*	*
	Aberdeen	54	23	43·0	32·4	37·9	+ 0·1	3	36	4	0·20	−0·33	8·9	− 1·9	18	− 6‡
	Braemar ℌ	50	27	41·2	32·9	37·2	+ 2·5	0	34	2	0·24	−0·56	4·7†	? †	9†	?†
	Ochtertyre ℌ	52	21	45·1	32·7	39·2	+ 2·5	9	37	0	—	−1·17	*	*	*	*
	Leith	49	27	42·9	34·7	39·0	− 0·4	3	28	0	—	−0·44	*	*	*	*
	Marchmont ℌ	47	25	40·7	31·5	36·3	− 0·2	0	40	3	0·59	−0·03	6·8	?	13	?
2. ENGLAND, N.E.	Alnwick Castle	50	17	40·6	30·6	35·8	− 2·2	0	43	4	0·43	−0·07	*	*	*	*
	Durham	48	21	42·2	29·9	36·3	− 0·9	1	44	4	0·40	−0·08	8·3	− 1·6	16	− 1
	Shields	46	24	40·6	31·1	36·0	− 2·6	0	42	6	0·19	−0·21	*	*	*	*
	Scarborough ℳ	48	26	41·2	32·0	36·8	− 1·8	0	36	3	0·34	−0·11	*	*	*	*
	York	45	22	39·0	28·0	33·7	− 4·2	0	58	4	0·16	−0·26	5·1	− 0·8	9	− 1
	Spurn Head	39	28	36·9	30·7	33·9	− 4·2	0	57	5	0·26	−0·05	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	39	8	34·2	21·1	27·9	− 9·3	0	99	6	0·62	+0·17	6·7	− 3·2	12	− 5
	Yarmouth	41	19	35·3	27·4	31·5	− 6·3	0	74	6	0·34	−0·11	*	*	*	*
	Geldeston	40	7	36·3	24·7	30·7	− 7·6	0	79	6	0·33	−0·04	11·9	+ 0·9	21	0
	Cambridge	39	7	35·4	23·3	29·6	− 8·0	0	87	4	0·08	−0·28	11·0	0·0	20	+ 1
	Rothamsted	41	10	34·9	23·2	29·3	− 8·1	0	89	3	0·12	−0·47	12·8	?	23	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	43	10	38·3	26·6	32·7	− 4·8	0	65	2	0·13	−0·31	*	*	*	*
	Loughborough	43	19	38·7	25·9	32·6	− 5·4	0	66	2	0·02	−0·44	*	*	*	*
	Stamford (Ketton Hall)	43	13	37·6	25·0	31·6	− 6·9	0	73	4	0·13	?	*	*	*	*
	Cheadle ℳ	42	21	37·6	26·9	32·5	− 4·2	0	67	3	0·05	−0·56	*	*	*	*
	Churchstoke ℳ	44	17	40·0	26·6	33·6	− 4·6	0	59	0	—	−0·67	17·8	+ 7·8	32	+15
	Hereford ℳ												*	*	*	*
	Cirencester	43	11	37·1	25·4	31·5	− 6·2	0	74	1	0·03	−0·68	15·9	+ 6·0	28	+11
	Oxford	42	12	36·1	23·3	30·0	− 8·6	0	84	2	0·03	−0·47	17·1	+ 8·2	31	+15
5. ENGLAND, S.	London	43	14	35·7	25·1	30·6	− 8·7	0	80	4	0·12	−0·37	5·1†	+ 0·2†	9†	0†
	Strathfield Turgiss ℳ	41	11	35·9	22·6	29·5	− 8·3	0	88	2	0·13	−0·42	*	*	*	*
	Dungeness	41	14	35·9	25·1	30·7	− 9·2	0	79	5	0·79	+0·20	*	*	*	*
	Hastings (St. Leonards)	42	23	36·7	28·2	32·6	− 7·4	0	66	5	0·66	+0·01	18·1	+ 5·3	32	+ 9
	Southampton	42	20	37·6	26·3	32·2	− 7·7	0	69	2	0·02	−0·73	23·7	+14·2	42	+24
	Hurst Castle	41	21	38·1	25·4	32·0	− 8·9	0	70	2	0·05	−0·63	*	*	*	*
	Stowell ℳ	42	18	36·8	25·0	31·1	− 7·4	0	76	1	0·08	?	17·7†	? †	31†	? †
6. SCOTLAND, W.	Laudale (Loch Sunart)	? 53	33	46·6	37·1	42·0	+ 2·4	13	14	7	0·96	−1·08	*	*	*	*
	Glasgow	48	31	44·3	36·6	40·6	+ 2·2	6	22	1	0·09	−0·87	3·9	− 0·9	8	0
	Ardrossan	49	32	44·6	37·9	41·4	+ 1·1	7	17	2	0·09	−0·88	*	*	*	*
	Glenlee ℌ	49	20	44·2	33·6	39·1	+ 1·7	6	32	2	0·04	−1·73	*	*	*	*
	Douglas (Isle of Man)	48	29	44·5	35·7	40·3	− 0·3	7	25	1	0·05	−1·02	21·1	+12·1	39	+22
7. ENGLAND, N.W.	Newton Reigny	46	16	40·4	29·6	35·2	− 2·0	0	48	0	—	−0·87	10·6	+ 1·8	20	+ 3
	Stonyhurst	43	22	39·5	29·9	34·9	− 3·0	0	50	1	0·01	−0·94	14·6	+ 7·7	27	+14
	Blackpool ℳ	41	25	37·7	31·6	34·8	− 3·4	0	50	1	0·09	−0·61	18·0	+11·1	33	+20
	Manchester	43	23	38·2	28·5	33·5	− 4·5	0	60	2	0·05	−0·67	*	*	*	*
	Liverpool Obsy. (Bidston)	44	28	39·6	32·4	36·1	− 3·4	0	41	0	—	−0·50	*	*	*	*
	Llandudno ℳ															
	Holyhead	47	30	43·6	38·4	41·1	− 1·0	4	14	2	0·03	−0·75	*	*	*	*
8. ENGLAND, S.W.	Llandovery	44	17	39·4	23·1	31·6	− 8·8	0	73	1	0·11	−1·10	*	*	*	*
	Pembroke	46	30	42·9	34·9	39·1	− 3·2	3	27	1	0·02	−0·84	19·1	+ 8·4	34	+14
	Arlington (N. Devon)	45	21	40·4	26·7	33·8	− 5·9	0	57	1	0·10	−0·92	*	*	*	*
	Cullompton ℳ	44	17	40·0	24·5	32·6	− 7·4	0	66	3	0·11	−0·67	21·8	+14·0	38	+24
	Falmouth	45	27	41·6	32·9	37·4	− 6·6	0	32	1	0·09	−1·14	25·2	+14·2	43	+25
	Plymouth	45	24	40·2	27·6	34·2	− 7·9	0	55	2	0·05	−0·85	28·9	+18·9	49	+33
	Prawle Point	47	24	41·9	29·4	35·9	− 6·2	0	43	1	0·01	−0·70	*	*	*	*
9. IRELAND, N.	Malin Head	49	31	45·3	39·1	42·3	+ 1·9	14	8	3	0·11	?	*	*	*	*
	Londonderry	46	31	44·5	36·8	40·8	+ 1·1	7	21	4	0·26	−0·65	*	*	*	*
	Mullaghmore	48	36	45·9	39·6	42·9	+ 0·8	16	7	4	0·14	−0·64	*	*	*	*
	Belmullet	50	36	47·0	40·3	43·8	+ 0·8	20	5	4	0·23	?	*	*	*	*
	Markree Castle	48	27	44·8	33·8	39·5	− 0·2	8	32	5	0·16	−0·63	8·0	− 0·8	15	− 2
	Brookeborough	45	27	42·7	32·3	37·7	− 0·7	2	36	2	0·11	−0·89	*	*	*	*
	Armagh	47	28	43·6	33·2	38·6	− 0·4	4	33	4	0·10	−0·55	9·2	− 0·8	17	0
	Donaghadee	48	31	45·0	37·3	41·3	+ 1·0	8	20	3	0·12	−0·53	*	*	*	*
	Edgeworthstown	46	26	43·4	31·7	37·8	− 0·4	4	39	4	0·05	−0·64	*	*	*	*
10. IRELAND, S.	Dublin	47	32	44·4	35·7	40·2	− 1·7	7	25	3	0·12	−0·38	20·7	+ 8·9	38	+16
	Parsonstown	44	25	42·6	29·1	36·1	− 3·9	2	47	2	0·12	−0·58	18·0	+ 7·0	33	+13
	Kilkenny	46	23	42·4	29·1	36·0	− 5·2	1	47	2	0·07	−0·73	*	*	*	*
	Waterford	45	30	43·8	32·2	38·2	− 4·5	5	37	2	0·07	−0·95	*	*	*	*
	Roche's Point	48	32	45·6	35·6	40·8	− 2·9	10	26	0	—	−1·23	*	*	*	*
	Valencia	50	32	48·3	36·7	42·7	− 2·4	27	15	5	0·07	−1·44	21·4	+ 8·6	38	+16
	Killarney	50	24	45·6	33·7	39·9	− 3·6	10	33	4	0·20	?	*	*	*	*
	Foynes	48	29	44·2	34·5	39·5	− 2·7	6	29	2	0·02	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	47	29	44·4	37·3	41·0	− 5·1	7	19	1	0·10	−0·76	*	*	*	*
	Jersey	45	26	42·4	32·1	37·5	− 4·8	1	37	4	0·35	−0·36	27·6	+12·6	46	+21

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

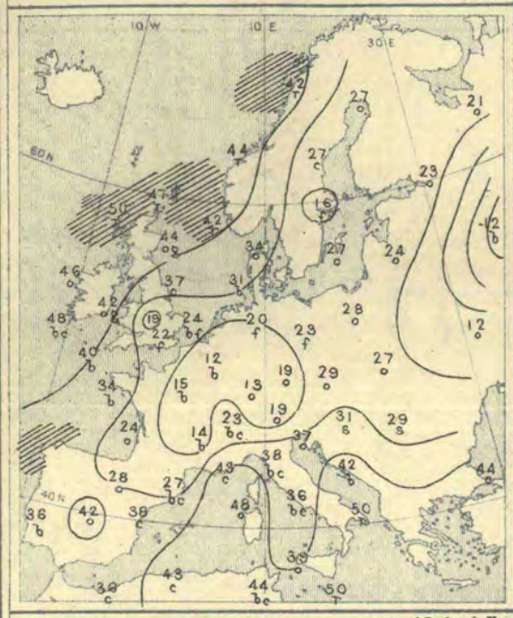
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page. ‡ Erratum.—The corresponding value in last week's Report should read "+ 9."

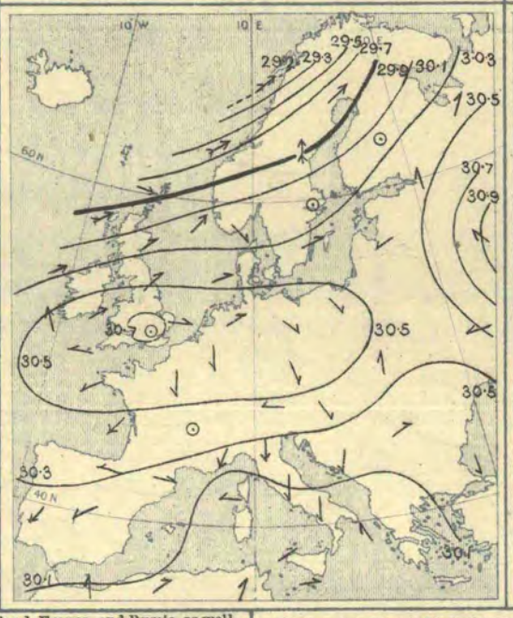
II.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 11th January.

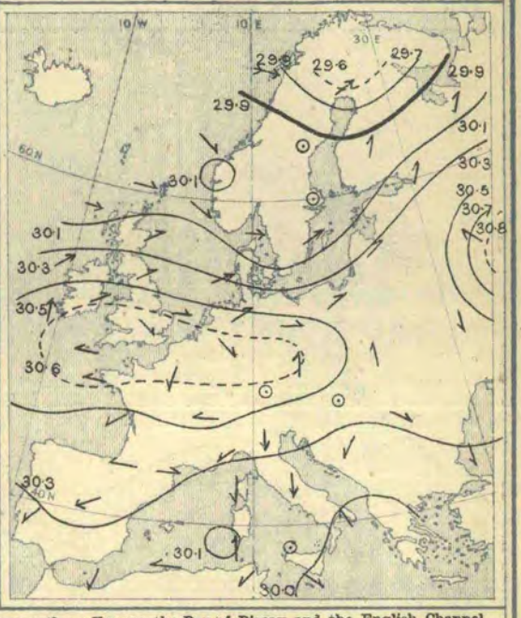
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright in many parts of Ireland, England, France, and Russia, as well as most of the Mediterranean stations; cloudy, overcast, or foggy elsewhere—very foggy over the south-east of England. Rain falling on the Norwegian coasts, as well as in the Shetlands and Hebrides, snow at the Austrian stations, rain in the south of Italy and at Malta. Rainfall considerable over Scandinavia, slight elsewhere.

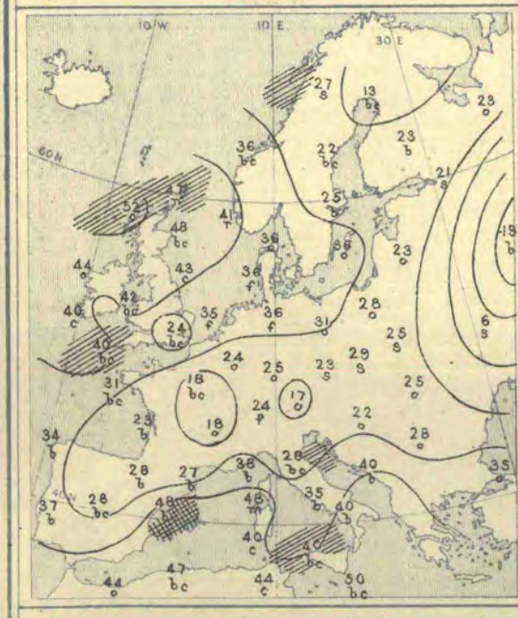
Temperature risen quickly in the extreme north-west, and also at some of the south German, southern French, and central Spanish stations; fallen over Russia, north Germany, the north-east of France, and south-eastern Europe. Morning readings touching 50° at Brindisi and Malta, as well as at Stornoway, and exceeding 40° over the western and northern parts of the British Islands generally, and in Norway. Lowest, −12° at Moscow, +3° at Kharkov, 12° at Kiev, 19° at Ulleaborg; also 2° at Münster, 12° at Brussels, 13° at Wiesbaden and Oxford, 15° at Paris, 22° in London, and 23° at Berlin. Rising to 50° or more at several of our extreme northern and western stations later, no decided alteration over England; maximum in London only 25°.

Wind mainly North-Easterly over southern Europe, the Bay of Biscay, and the English Channel, Northerly to Westerly over eastern Germany and Austria, Southerly in Ireland, South-Westerly over Scotland and Scandinavia, and blowing a gale at exposed stations, such as Bodö, Christiansund, and Stornoway. Veering to the Westward in Scotland and the west of Norway later, and moderating, but remaining strong, from the Southward in the west of Ireland all day.

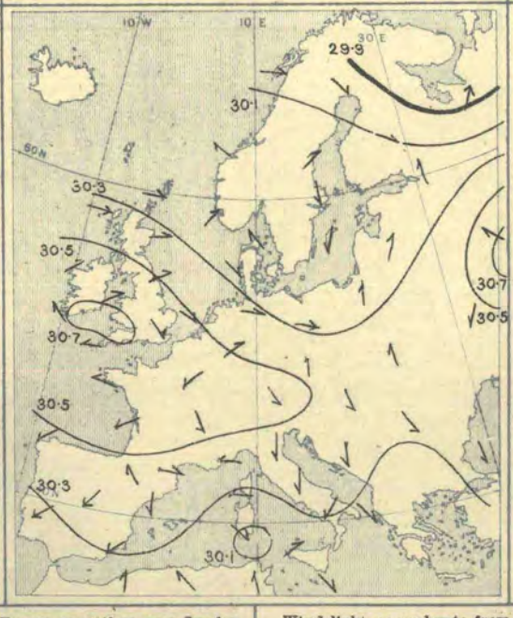
Barometer highest, 30·9 ins. to 30·5 ins. in a large anticyclone over central Russia, 30·7 ins. to 30·5 ins. in another stretching from Ireland across England, the north of France, and the Netherlands to north Germany. Lowest, 30·1 ins. and less over nearly the whole of the Mediterranean, 30·0 ins. to 29·2 ins. over the north of Scotland, Norway, and the adjacent parts of the Atlantic. Gradients steep in the extreme north-west. Rising over Scotland later, falling over Sweden and the Baltic.

Monday, 12th January.

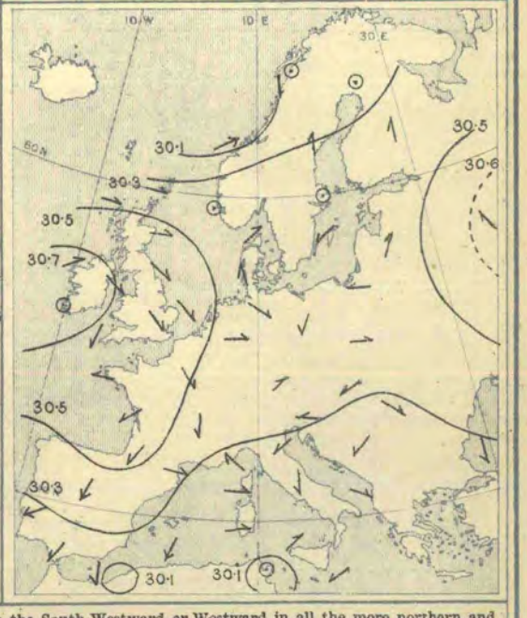
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the greater part of western and southern Europe, as well as over Sweden, Lapland, and central Russia, but foggy in London. Dull over the central and south-eastern countries, with snow in many places; foggy over the Netherlands, north Germany, and the south of Denmark, rainy at Skudesnaes and Sumburgh Head. Drizzling rain falling later in the south and south-east of England, and snow at some of the French stations.

Temperature highest, (1) 52° at Stornoway and Wick, 51° at Nairn, and 48° at Aberdeen; (2) 50° at Brindisi and Malta, 48° at Sanguinaire and Barcelona, and 47° at Algiers; considerable rise in progress over England, the Netherlands, and Germany. Lowest, (1) −19° at Moscow, +6° at Kiev, and 9° at Kharkov; (2) 17° at Limoges and Munich, 18° at Paris, and 21° at Le Mans; below the freezing point over central Ireland and the south of England. Decided rise taking place over England later, and thermometer exceeding 40° on all but our extreme south-east coasts. Daily maxima below 32° at some of the French and German stations.

Wind light or moderate from the South-Westward or Westward in all the more northern and eastern parts of the United Kingdom, as well as over the Netherlands and Germany. Light from the North-Eastward or Eastward over the Channel, France, and Spain, and from the South-Eastward in Algeria. Northerly in Italy, and also in Denmark and the south of Sweden, variable in Scandinavia, South-Westerly over northern Russia. Subsequently becoming variable in the south and south-east of England.

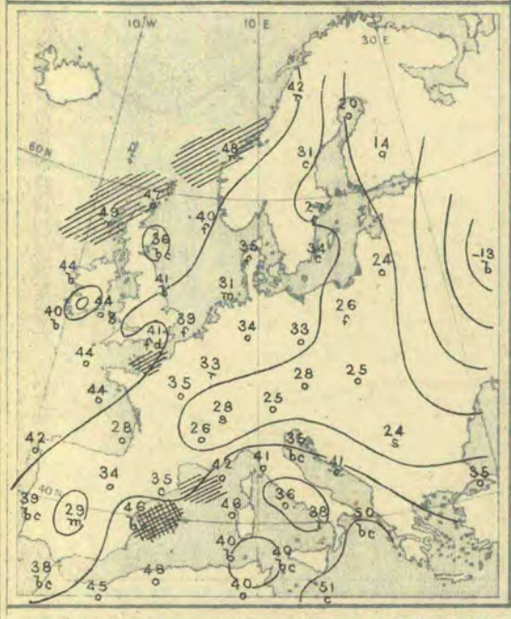
Barometer highest, 30·7 ins. and upwards in the central portion of an anticyclone lying over Russia, and also in another system lying over the south-west of our Islands. Lowest, 29·9 ins. and less in a depression lying over the White Sea. 30·1 ins. and less in a small system lying to the southward of Sardinia. Barometer rising during day in nearly all parts of our Islands, but falling slightly over France and the extreme south of England.

Judd & Co Lith. 73 & 75 Farringdon Rd & Doctors Commons.

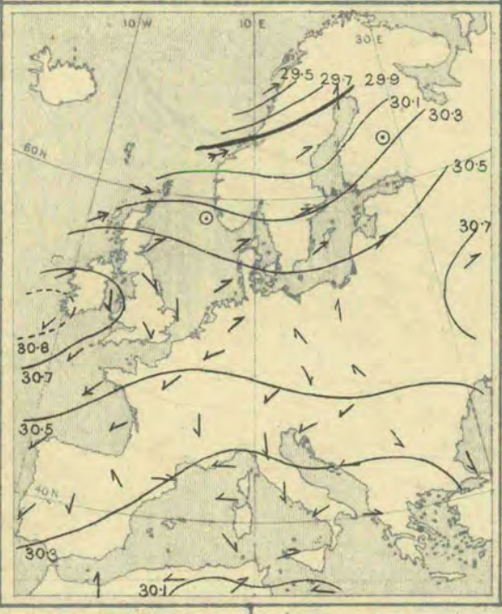
II.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 13th January.

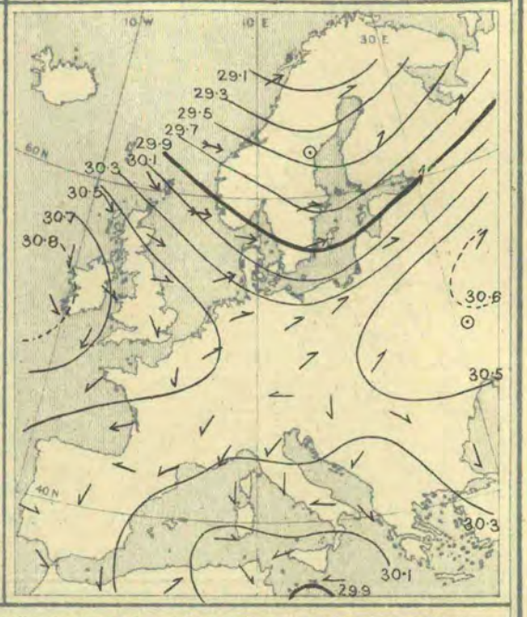
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather dul. and foggy over the central parts of the United Kingdom, but fair in all the outlying districts, as well as in the southern parts of Spain and Italy. Dull at most of the Continental stations, with fog in Denmark and the south of Norway, rain in the west of Norway, and snow in some parts of Finland and Austria, as well as at Belfort. Slight drizzling rain falling during day in many parts of the United Kingdom; sky clearing in Italy and the south of France.

Temperature highest, (1) 51° at Malta, 50° at Brindisi, 48° at Algiers, and 45° at Oran and Sfax; (2) 49° at Stornoway, 48° at Christiansund, and 47° at Nairn and Ardrossan. Lowest, −13° Fahr. at Moscow, +14° at Kuopio, 17° at Uleaborg, 19° at Helsingfors (many of the Russian reports wanting); below the freezing point over the greater part of northern, eastern, and central Europe, as well as over the central parts of Ireland and England, but considerably above it in the west of Norway. Daily maxima above 40° in most parts of the United Kingdom, and above 50° in the north of Scotland, but thermometer remaining below 32° at several of the French and German stations.

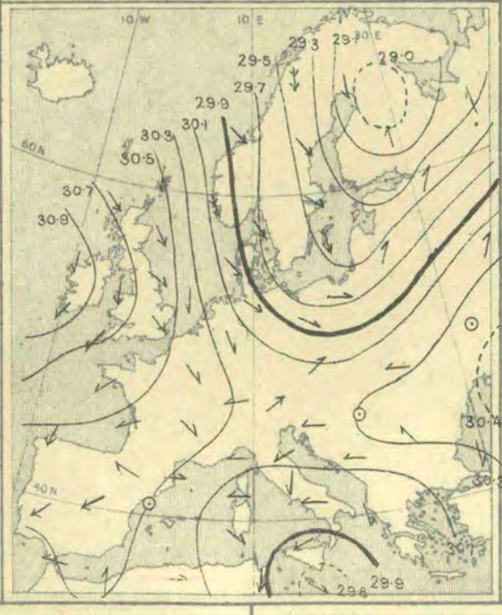
Wind South-Westerly over Scandinavia, Denmark, and the northern parts of the United Kingdom, with a strong gale in the west of Norway. Light or moderate from the North-Eastward or Eastward over the Channel, France, and the greater part of central and southern Europe, light from the Southward in Algeria, variable or Northerly in Austria. Subsequently veering to the Westward in Norway, and to the North-Westward in the north of our Islands, with some increase in force. North-Easterly wind blowing strongly in the north of Italy.

Barometer highest, 30·8 ins. and upwards in the south-west of Ireland, 30·7 ins. and upwards over central Russia, 30·5 ins. and upwards in a broad "col" stretching across England, the Netherlands, Germany, and Poland. Lowest, 29·5 ins. and less in a large and deep depression having its centre to the north-westward of Norway. Depression subsequently moving eastwards and barometer falling rapidly at the Scandinavian stations. Shallow disturbance appearing over the central parts of the Mediterranean.

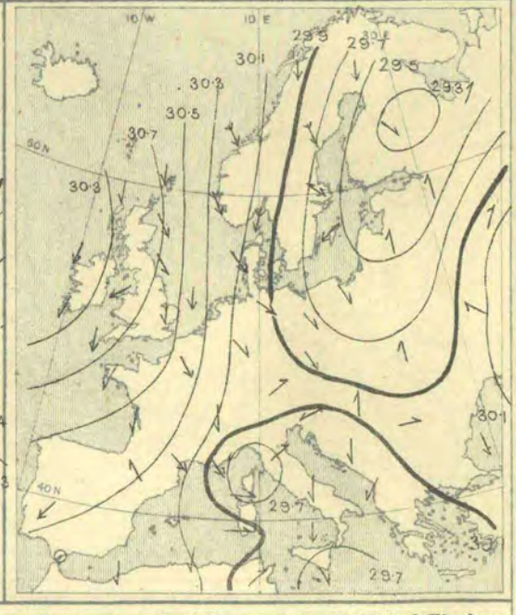
Wednesday, 14th January.

Temperature and Weather. — 8 a.m.

Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fine in England and Ireland, as well as over Sweden, Denmark, and the greater part of southern Europe. Dull elsewhere, with rain in Ireland, as well as at Tunis and Malta, and snow in Scotland, the west of Norway, and some parts of Russia. Snow showers falling during day in the east of England and heavy rain in Algeria.

Temperature highest, 51° at Palermo, 50° at Constantinople, 49° at Brindisi, Algiers, and Tunis, above 40° on the west coasts of our Islands. Lowest, −4° at Kharkov, +9° at Cracow, 14° at Moscow, 16° at Buda Pesth, and 17° at Kiev and Hermanstadt; below the freezing point over nearly the whole of northern, eastern, and central Europe, as well as in the north of Italy and central Spain. Daily maxima above 40° in the western, southern, and extreme northern parts of the United Kingdom, but below it in the eastern and central parts of Great Britain. Thermometer remaining below the freezing point in some parts of central France.

Wind fresh to strong from the Northward or North-Westward over the United Kingdom, Scandinavia, Denmark, the North Sea, and the north of France, with a gale in the south of Norway. Moder te to strong from the South-Westward over Germany, Westerly over Russia and the Gulf of Finland. Variable in Austria, Italy, and the south of Russia, North-Easterly in Spain; cyclonic circulation reported over Tunis and the south of Italy. Subsequently increasing to a gale from the Northward in the west of Norway.

Barometer highest, 30·9 ins. and upwards in the west of Ireland, 30·5 ins. and upwards in a large anticyclone lying over the whole of our Islands, with the Bay of Biscay and the north-west of France. Lowest, 29·0 ins. and less in a depression lying over Lapland, 29·7 ins. and less in a shallow disturbance lying to the southward of Malta. Gradients steep over the whole of northern Europe. Depression over Lapland subsequently moving south-eastwards and barometer rising briskly in Scandinavia. Deep disturbance appearing over Gulf of Genoa in evening.

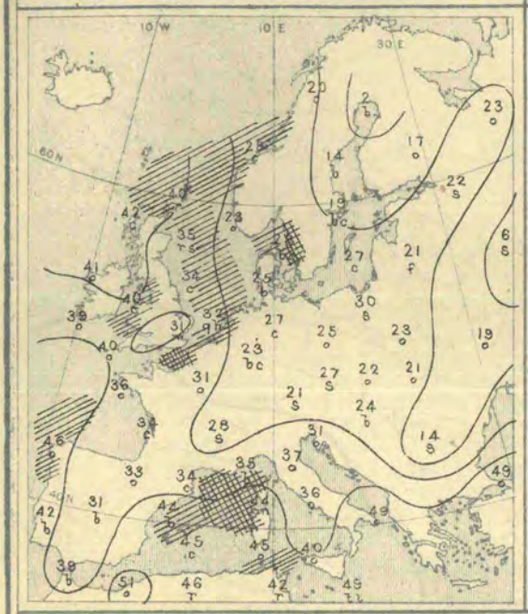
Judd & Cº Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

II.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 15th January.

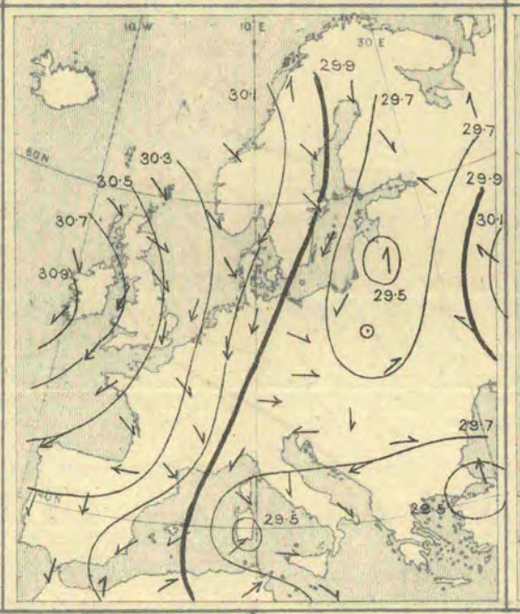
Temperature and Weather.

8 a.m.

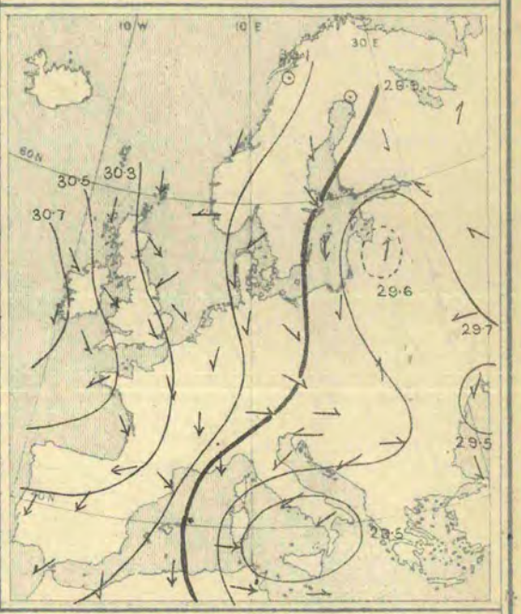


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine in the west and south of our Islands, as well as in Scandinavia, Denmark, the Netherlands, Spain, and the south of France. Cloudy elsewhere, with rain in the north of Scotland, and also in Algeria; hail showers in the east of England, snow in several parts of Russia and central Europe, as well as at Aumale, and a thunderstorm at Malta. Snow showers falling later in all the more eastern parts of Great Britain, and rain in the west of our Islands. Snow also reported at some of the French stations.

Temperature highest, 51° at Oran, 49° at Brindisi, Malta, and Constantinople, 48° at Nemours, and 46° at Algiers, below 40° on the northern shores of the Mediterranean. Lowest, 2° at Haparanda and Uleaborg, 6° at Moscow, 14° at Hernosand, Memel, and Hermanstadt, and 17° at Kuopio and Kharkov; below 20° in most parts of Sweden and Russia, and below the freezing point over northern and central Europe, as well as in the southern parts of the United Kingdom. Daily maxima below 40° at most of the English stations, and below 32° over Germany and central France.

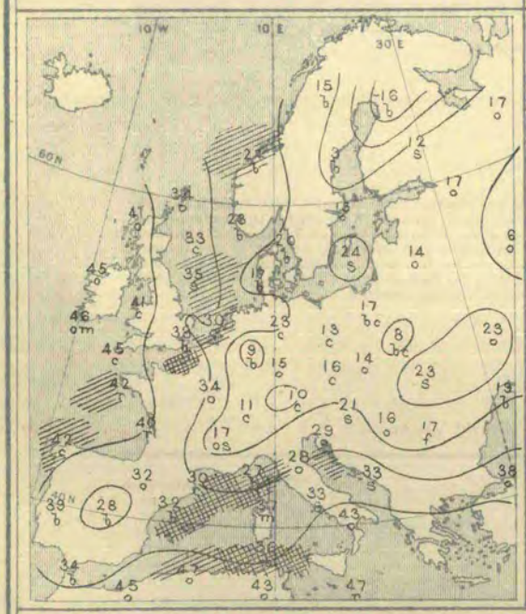
Wind Northerly or North-Westerly over the greater part of our Islands and the Continent, strong in force over Denmark, the south of Sweden, and the east of England, with a gale at Wisby. Light from the South-Eastward over the central and southern parts of Russia and moderate to strong from the Southward or South-Westward in Algeria. No important change occurring during day.

Barometer highest, 30·9 ins. and upwards in the south-west of Ireland, 30·4 ins. and upwards in an anticyclone lying over the whole of the British Islands, with the Bay of Biscay and the west of France, 30·1 ins. and upwards in another anticyclone lying over Russia. Lowest, 29·5 ins. and less in a large depression lying over Turkey and Asia Minor, as well as in smaller disturbances lying respectively over the Gulf of Riga and over Scandinavia. Shallow depression moving southwards across our Islands during day and barometer falling in all parts of the United Kingdom. Depression over Turkey moving slowly north-eastwards.

Friday, 16th January.

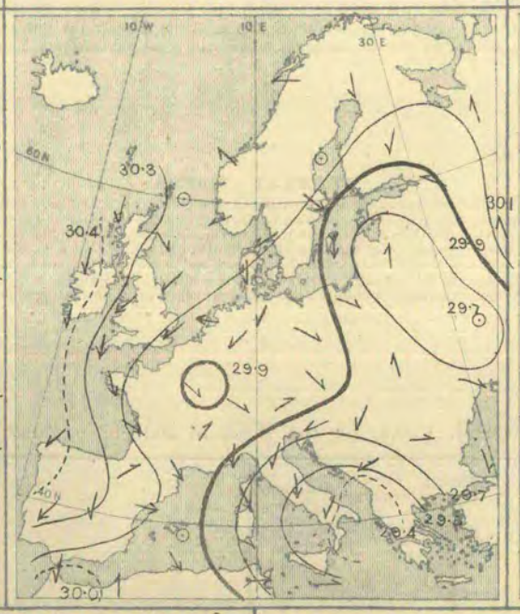
Temperature and Weather.

8 a.m.

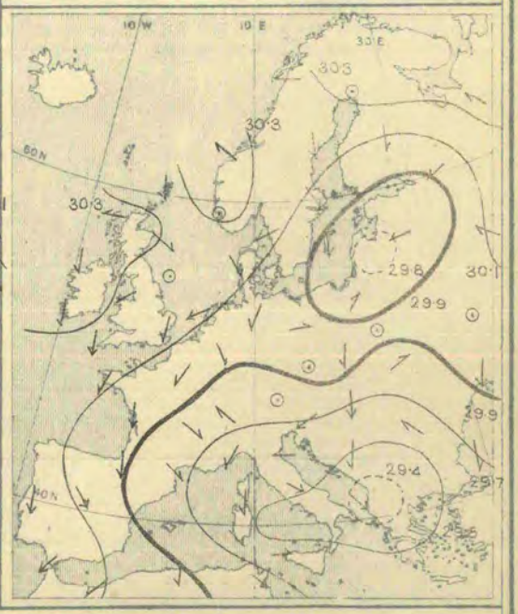


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine over the southern parts of the United Kingdom, and also in Scandinavia, Denmark, the Netherlands, Spain, and the south of France. Dull elsewhere, with showers of rain or snow over the eastern parts of Great Britain, and more decided falls of snow over Italy, Austria, and some parts of central France, as well as at Aumale. Snow falling during day over nearly the whole of western Europe, as well as in Russia.

Temperature highest, (1) 47° at Algiers and Malta, 45° at Nemours, and 44° at Oran; (2) 46° at Valencia Island, and 45° at Belmullet, Mullaghmore, Roche's Point, and Scilly; above 40° in the western parts of the United Kingdom generally. Lowest, −16° at Haparanda, −6° at Uleaborg, +3° at Hernösand, 6° at Moscow, 8° at Warsaw, and 10° at Munich; below 20° in many parts of Russia and central Europe, below the freezing point over central Spain and northern Italy. Daily maxima below 32° over the east of England, and also over the central and southern parts of France; below 20° in Germany.

Wind Northerly (North-East to North-West) over the greater part of our Islands and the Continent, but Southerly or South-Easterly in Russia and Westerly over the central parts of the Mediterranean. The North-Easterly wind blowing strongly in the east and south-east of England, as well as over the Adriatic, and the Northerly wind strong at Sanguinaire and Rome. Subsequently becoming variable in the northern parts of the United Kingdom, but blowing strongly from the Northward in the west and south of France.

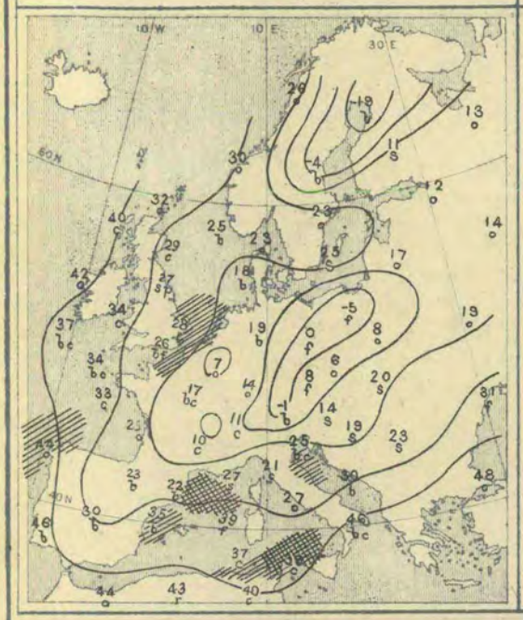
Barometer highest, 30·4 ins. and upwards in a large anticyclone extending from the Atlantic to the west of Ireland and the north-west of Spain, 30·1 ins. and upwards over central Russia. Lowest, 29·4 ins. and less in a well-defined depression lying over the southern parts of Italy and the Adriatic, 29·7 ins. and less in an elongated system extending from the Baltic Provinces to the south of Russia, 29·9 ins. and less in a small disturbance over the north-east of France. French depression subsequently moving away southwards, anticyclone in west spreading north-eastwards.

Judd & Co Lith. 73 & 75 Farringdon St & Doctors Commons

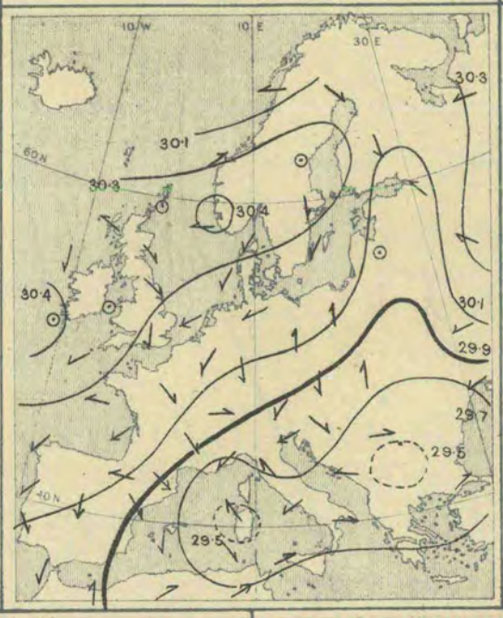
II.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 17th January.

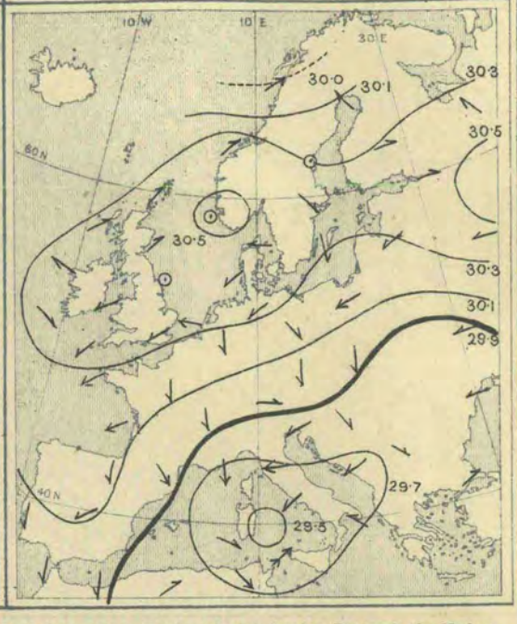
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the greater part of England, France, and Spain, as well as over Sweden, Denmark, and the Adriatic. Dull elsewhere, with snow at some of our eastern and south-eastern coast stations, as well as in Finland, Austria, and the south of France. Fog reported in many parts of Germany. Sky clearing later in Ireland and Scotland, but snow falling in the east and south of England, and also over eastern Germany.

Temperature highest, (1) 48° at Constantinople, 46° at Lisbon and Brindisi, and 45° at Oporto; (2) 42° at Belmullet and Mullaghmore and 40° at Stornoway. Lowest, (1) −19° Fahr. at Haparanda, −4° at Hernösand, 0° (zero) at Uleaborg, and +11° at Kuopio; (2) −5° Fahr. at Neufahrwasser, −1° at Munich, 0° at Berlin, and 5° at Swinemünde; below 20° over nearly the whole of northern and central Europe, and several degrees below the freezing point over England. Daily maxima below 32° in many parts of England and France; thermometer at Lyons not exceeding 13°.

Wind light to fresh from the North-Eastward or Northward over Sweden, Denmark, the Netherlands, France, Spain, and the greater part of Ireland and England. Variable in Scotland and Norway, North-Westerly in Austria, Easterly in the north of Italy, South-Westerly in Algeria. Light or moderate South-Westerly breezes setting in later over Scotland and Norway. Wind increasing to a gale from the North-Eastward in the north of Italy and from the South-Westward in Sicily.

Barometer highest, 30·3 ins. to 30·4 ins. in a large anticyclone lying over the greater part of our Islands, the North Sea, and Scandinavia, as well as in another system lying over central Russia. Lowest, 29·5 ins. and less in a shallow depression lying over eastern Austria, 29·6 ins. and less in a well-defined disturbance lying over Corsica, Sardinia, and the neighbouring parts of the Mediterranean. Large depression appearing later off the north-west of Norway.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

At the beginning of this period anticyclonic conditions were prevalent over nearly the whole of Europe, and hard frost was reported very generally, with dense fogs in the south-east of England. A large depression was, however, shown off the north-west of Norway, and the North-Westerly winds which appeared in the rear of this system spread over the United Kingdom on the 12th and occasioned a temporary thaw over England, the maximum readings of the 13th being above 49° in most parts of the Kingdom. Between the 13th and 16th a large depression advanced from the northward over Scandinavia, the Baltic, and central Europe, and occasioned very unsettled weather in all the more northern, eastern, and central countries, with gales from the North-Westward or Northward and heavy falls of snow in many places. On reaching central Europe the depression appears to have broken up, and a new anticyclone appeared in the far north, the latter system ultimately becoming united with the high-pressure area hitherto existing to the west of our Islands. At the close of the week anticyclonic conditions and hard frost again prevailed in all but the southern and eastern countries.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 8.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	2·7	?	5	?	THURCASTON	12·0	+5·0	22	+9
OSWALDKIRK	8·4	?	16	?	TORQUAY	28·2	?	43	?
WORKSOP	4·8	−3·0	9	−5	CAVAN	14·2	?	26	?

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, AND 21, DREWY STREET, GLASGOW; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. VIII. No. 3]. *Third Series.* WEEK ENDING SATURDAY, 24TH JANUARY, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 14.)	Observed during the Week.					Above or below the Mean for the Week.	Accumulated.							
				Averages of				For the Week.				From January 4th, 1891.			
		Highest.	Lowest.	Daily Maxima.	Daily Minima.	Daily Mean.		Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	52	10	39·6	27·9	34·0	5 below.	0	− 8	56	+23	6	−19	139	+ 39
	1. SCOTLAND, EAST -	49	16	39·4	27·1	33·5	4 below.	0	− 8	60	+20	2	−25	168	+ 48
	2. ENGLAND, N.E. - -	50	9	39·0	26·1	32·8	5 below.	0	− 7	64	+26	0	−21	190	+ 77
	3. ENGLAND, EAST -	49	5	39·6	25·4	32·8	5 below.	0	− 8	64	+20	0	−21	253	+120
	4. MIDLAND COUNTIES	52	1	40·7	24·7	33·0	5 below.	0	− 9	63	+20	0	−28	223	+ 90
	5. ENGLAND, SOUTH -	50	11	41·2	27·6	34·7	5 below.	0	−10	51	+19	0	−30	214	+111
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	49	15	41·4	31·8	36·8	3 below.	0	−10	33	+ 6	8	−24	121	+ 32
	7. ENGLAND, N.W. -	52	12	40·9	29·2	35·3	4 below.	0	− 8	47	+17	0	−26	160	+ 69
	8. ENGLAND, S.W. -	51	7	43·7	30·5	37·4	4 below.	5	−10	44	+21	5	−39	161	+ 91
	9. IRELAND, NORTH -	50	25	42·7	32·7	37·9	3 below.	2	−12	34	+ 9	10	−34	118	+ 41
	10. IRELAND, SOUTH -	54	24	46·3	36·0	41·3	1 below.	12	− 8	25	+ 5	19	−43	112	+ 52
	— CHANNEL ISLANDS -	52	12	46·0	36·0	41·2	3 below.	11	−10	25	+15	15	−48	83	+ 51

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 14.)	Rainfall. For the Week.			Rainfall. From January 4th, 1891.				Bright Sunshine. For the Week.				Bright Sunshine. From January 4th, 1891.			
		Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	7	23	10 more.	17	+ 2	3·2	− 0·5	6	− 3	11	− 6	18	+ 1	12	0
	1. SCOTLAND, EAST -	5	6	0 (average)	9	− 1	1·0	− 1·0	14	− 4	25	− 9	30	− 1	20	− 2
	2. ENGLAND, N.E. - -	5	3	2 less.	12	+ 2	0·8	− 0·5	16	+ 1	28	+ 1	31	+11	19	+ 6
	3. ENGLAND, EAST -	5	6	2 more.	14	+ 4	1·2	− 0·1	19	+ 2	34	+ 4	47	+19	28	+11
	4. MIDLAND COUNTIES-	4	9	3 more.	8	− 2	1·1	− 0·6	16	+ 6	27	+11	47	+22	28	+12
	5. ENGLAND, SOUTH -	5	10	4 more.	10	0	1·4	− 0·5	18	0	30	0	53	+27	31	+16
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	7	18	5 more.	12	− 1	2·4	− 1·6	12	+ 3	22	+ 8	39	+17	25	+11
	7. ENGLAND, N.W. - -	5	13	5 more.	7	− 4	1·4	− 0·8	11	+ 2	20	+ 4	39	+17	24	+10
	8. ENGLAND, S.W. - -	6	15	5 more.	9	− 3	2·0	− 0·9	10	+ 2	17	+ 3	58	+25	33	+14
	9. IRELAND, NORTH -	7	10	2 more.	13	0	1·3	− 1·0	11	0	19	0	40	+12	25	+ 8
	10. IRELAND, SOUTH -	6	10	0 (average)	11	− 1	1·5	− 1·4	11	− 2	19	− 2	51	+15	31	+ 9
	— CHANNEL ISLANDS -	6	6	2 less.	11	− 2	1·2	− 1·2	13	− 3	22	− 4	68	+21	38	+11

General Remarks.

Weather over England has undergone a complete change. The frost, so long prevalent, broke up entirely on the 19th and gave place to a warm current of air from the westward and south-westward. A good deal of rain fell in most parts of the Kingdom, and in Scotland some heavy falls of snow were also experienced. In the southern and eastern parts of Great Britain the weather was less cloudy than elsewhere, fine, bright intervals having prevailed from time to time.

Temperature as a whole, has, however, been below the mean for the week, the deficit having ranged from 5° in the north of Scotland and the greater part of England to only 1° in "Ireland S." At the beginning of the week the thermometer over England was extremely low, the absolute minima recorded being 1° in the "Midland Counties" (at Stamford), 5° in "England E." (at Hillington), 7° in "England S.W." (at Llandovery), and between 9° and 12° in the other districts. In Scotland the lowest readings were generally registered either on the 18th or 22nd, and varied from 10° to 16°, while in Ireland the thermometer did not fall below 24°. The highest of the maxima were recorded towards the end of the week, and ranged from 49° to 54°. At many of the English stations the daily maxima recorded on the 18th and 19th were below 30°.

Rainfall has been less than the mean in "England N.E." and the "Channel Islands," and about equal to it in "Scotland E." and "Ireland S.;" in all other districts, however, there has been an excess.

Bright Sunshine has been rather more than the mean in most districts, the percentage of the possible duration having ranged from 34 in "England E." and 30 in "England S." to 19 in Ireland and 11 in "Scotland N."

Barometer and Wind.—At the commencement of the week the distribution of pressure was anticyclonic, with winds from between North and East. By the 19th the anticyclone had moved southwards, and from this time a series of large and rather deep depressions travelled eastwards off the north of Scotland, causing fresh or strong Westerly winds very generally and the mild conditions noticed above. At the close of the week some secondary disturbances were passing eastwards over Ireland and England, and caused the wind to increase to a gale from the Westward in the Channel.

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III.—DATA from which the SUMMARY on page 13 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	43	27	40·0	32·7	36·5	− 3·1	0	39	7	0·33	0·00	*	*	*	*
	Stornoway	46	25	40·9	30·9	36·1	− 3·0	0	41	7	1·33	+0·66	8·7	+ 1·7	17	+ 3
	Wick	42	20	38·7	28·3	33·7	− 4·3	0	58	7	0·69	+0·23	*	*	*	*
	Lairg 𝔖	44	10	38·0	22·6	30·6	− 6·1	0	80	7	1·83	+1·05	*	*	*	*
	Glencarron 𝔖	44	19	38·9	25·9	32·7	− 5·0	0	65	7	3·91	+1·64	*	*	*	*
	Fort Augustus 𝔖	45	16	38·9	26·0	32·7	− 6·3	0	65	7	3·12	+2·07	4·0	?	8	?
	Fort William 𝔖	52	24	42·0	29·2	35·9	− 3·8	0	43	7	3·60	+1·33	4·6	?	9	?
1. SCOTLAND, E.	Nairn	45	20	40·3	28·3	34·5	− 3·1	0	53	6	0·84	+0·40	*	*	*	*
	Aberdeen	45	27	39·1	29·9	34·6	− 3·5	0	52	4	0·20	−0·30	18·1	+ 5·3	34	+10
	Braemar 𝔖	41	19	35·3	25·3	30·5	− 4·3	0	81	5	1·16	+0·37	7·3†	? †	14†	?†
	Ochtertyre 𝔖	44	21	40·3	25·7	33·3	− 3·8	0	61	6	1·08	−0·07	*	*	*	*
	Leith	49	22	42·7	28·1	35·7	− 4·0	2	51	3	0·12	−0·32	*	*	*	*
	Marchmont 𝔖	45	16	38·7	25·4	32·3	− 4·6	0	68	6	0·42	−0·18	15·3	?	28	?
2. ENGLAND, N.E.	Alnwick Castle	46	19	39·6	29·4	34·7	− 3·5	0	51	3	0·22	−0·27	*	*	*	*
	Durham	47	9	38·8	24·3	31·8	− 5·4	0	71	6	0·17	−0·29	16·1	+ 5·3	29	+12
	Shields	49	15	40·1	25·0	32·9	− 6·0	0	64	4	0·16	−0·24	*	*	*	*
	Scarborough 𝔐	44	16	37·6	26·6	32·2	− 6·5	0	69	6	0·25	−0·19	*	*	*	*
	York	50	10	40·3	23·3	32·1	− 5·9	0	69	5	0·43	+0·01	14·1	+ 7·3	25	+14
	Spurn Head	44	22	37·3	28·1	32·9	− 5·2	0	64	5	0·34	+0·04	*	*	*	*
3. ENGLAND, E.	Hillington 𝔐	45	5	37·7	21·5	29·9	− 7·3	0	85	5	0·63	+0·21	16·4	+ 5·8	29	+12
	Yarmouth	46	23	38·3	27·6	33·2	− 5·0	0	62	6	0·66	+0·21	*	*	*	*
	Geldeston	47	18	39·8	27·3	33·8	− 4·4	0	57	6	0·73	+0·38	14·6	+ 2·8	25	+ 4
	Cambridge	49	11	41·6	23·6	33·0	− 4·8	0	63	4	0·39	+0·03	20·7	+ 8·9	36	+17
	Rothamsted	48	11	40·5	26·8	33·9	− 3·3	0	57	4	0·75	+0·16	25·8	?	44	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	49	9	40·1	27·9	34·2	− 3·8	0	55	5	0·66	+0·24	*	*	*	*
	Loughborough	49	7	40·6	23·0	32·2	− 5·9	0	69	4	0·74	+0·27	*	*	*	*
	Stamford (Ketton Hall)	47	1	40·4	19·9	30·6	− 7·1	0	80	5	0·59	?	*	*	*	*
	Cheadle 𝔐	46	14	38·2	25·7	32·2	− 4·7	0	69	4	1·19	+0·59	*	*	*	*
	Churchstoke 𝔐	52	9	41·3	26·1	34·0	− 4·2	0	56	4	0·96	+0·33	15·5	+ 4·6	27	+ 9
	Hereford 𝔐	50	10	42·2	25·2	34·0	− 5·0	1	61	4	0·74	+0·17	*	*	*	*
	Cirencester	48	10	41·4	24·0	33·1	− 4·7	0	62	4	1·49	+0·78	17·6	+ 6·8	30	+12
	Oxford	48	12	41·7	25·4	33·7	− 4·9	0	58	5	0·85	+0·35	19·7	+ 9·6	34	+18
5. ENGLAND, S.	London	50	21	42·3	28·1	35·5	− 4·0	1	51	5	0·69	+0·21	13·5†	+ 8·2†	23†	+14†
	Strathfield Turgiss 𝔐	49	11	41·6	24·3	33·3	− 4·7	0	61	4	0·70	+0·15	*	*	*	*
	Dungeness	45	17	39·6	27·0	33·6	− 6·3	0	59	7	1·56	+0·98	*	*	*	*
	Hastings (St. Leonards)	45	24	39·0	29·3	34·3	− 5·7	0	54	7	1·32	+0·70	17·9	+ 4·3	30	+ 6
	Southampton	49	16	42·9	28·4	35·9	− 4·2	3	50	5	1·04	+0·29	22·5	+11·7	38	+20
	Hurst Castle	46	19	41·6	25·1	35·6	− 5·1	0	45	5	0·97	+0·29	*	*	*	*
	Stowell 𝔐	48	12	41·5	26·7	34·4	− 4·1	0	53	5	0·75	?	16·2†	? †	27†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart)	49	23	42·7	30·9	37·0	− 2·6	2	41	7	3·31	+1·31	*	*	*	*
	Glasgow	46	24	39·4	28·4	34·1	− 4·6	0	55	7	1·39	+0·44	8·9	+ 3·1	16	+ 7
	Ardrossan	47	26	43·4	33·1	38·5	− 1·8	4	34	7	1·32	+0·35	*	*	*	*
	Glenlee 𝔖	45	15	38·8	31·0	35·1	− 2·4	0	48	7	2·23	+0·48	*	*	*	*
	Douglas (Isle of Man)	49	31	42·7	35·5	39·2	− 1·3	2	24	7	0·74	−0·31	15·9	+ 6·2	28	+10
7. ENGLAND, N.W.	Newton Reigny	47	13	38·2	24·0	31·4	− 5·8	0	74	6	1·66	+0·79	8·9	− 0·9	16	− 1
	Stonyhurst	46	12	39·0	26·2	32·9	− 5·3	0	64	6	2·37	+1·45	11·2	+ 2·9	20	+ 6
	Blackpool 𝔐	44	19	39·6	29·0	34·5	− 3·6	0	53	4	0·59	−0·10	11·7	+ 3·5	21	+ 7
	Manchester	46	16	38·5	27·3	33·1	− 5·1	0	62	6	1·89	+1·19	*	*	*	*
	Liverpool Obsy. (Bidston)	52	20	43·1	30·0	36·8	− 2·8	3	45	6	0·78	+0·28	*	*	*	*
	Llandudno 𝔐	50	20	43·1	32·4	38·0	− 3·4	3	36	5	1·08	+0·47	13·3	+ 4·1	23	+ 6
	Holyhead	48	26	44·7	35·3	40·2	− 1·9	8	27	5	0·39	−0·34	*	*	*	*
8. ENGLAND, S.W.	Llandovery	48	7	41·7	23·4	32·9	− 7·5	0	64	6	2·61	+1·42	*	*	*	*
	Pembroke	48	24	45·3	35·4	40·6	− 2·0	9	27	5	1·18	+0·35	7·3	− 4·9	13	− 8
	Arlington (N. Devon)	48	14	42·1	27·9	35·3	− 4·3	0	52	6	2·43	+1·43	*	*	*	*
	Cullompton 𝔐	50	10	43·4	26·9	35·5	− 4·4	4	56	6	1·06	+0·29	11·9	+ 2·7	20	+ 5
	Falmouth	50	25	45·1	35·7	40·6	− 3·1	9	26	6	1·18	−0·03	5·2	− 6·8	9	− 9
	Plymouth	51	20	45·0	31·3	38·4	− 3·7	8	41	5	0·87	−0·03	8·8	− 2·1	15	− 1
	Prawle Point	47	22	43·4	33·0	38·4	− 3·7	4	34	6	1·05	+0·36	*	*	*	*
9. IRELAND, N.	Malin Head	48	28	43·9	32·7	38·5	− 2·4	5	35	7	0·93	?	*	*	*	*
	Londonderry	48	30	42·0	32·2	37·3	− 3·5	0	33	7	1·66	+0·76	*	*	*	*
	Mullaghmore	49	33	45·3	35·9	40·8	− 1·3	9	25	7	0·77	+0·01	*	*	*	*
	Belmullet	49	34	46·1	35·7	41·1	− 1·8	11	26	7	1·14	?	*	*	*	*
	Markree Castle	50	28	41·8	32·3	37·2	− 2·8	0	34	7	1·54	+0·76	9·6	− 0·4	17	0
	Brookeborough	48	27	39·8	31·2	35·7	− 3·1	0	44	7	1·05	+0·05	*	*	*	*
	Armagh	50	28	41·4	31·3	36·6	− 2·6	0	38	7	0·67	+0·02	12·1	+ 1·2	22	+ 5
	Donaghadee	49	25	43·1	31·7	37·6	− 2·7	3	38	7	0·43	−0·22	*	*	*	*
	Edgeworthstown	50	25	40·9	31·0	36·2	− 2·0	0	41	5	0·71	+0·03	*	*	*	*
10. IRELAND, S.	Dublin	54	29	44·1	33·5	39·0	− 3·1	6	33	5	0·31	−0·19	15·6	+ 3·0	27	+ 5
	Parsonstown	52	28	45·1	32·6	39·1	− 1·1	9	37	6	0·75	+0·05	10·0	− 1·8	18	− 2
	Kilkenny	51	24	44·3	31·9	38·4	− 2·9	6	39	6	1·03	+0·25	*	*	*	*
	Waterford	50	29	45·2	34·6	40·1	− 2·8	9	30	5	0·66	−0·37	*	*	*	*
	Roche's Point	51	35	47·6	39·1	43·5	− 0·3	23	8	5	0·98	−0·26	*	*	*	*
	Valencia	52	36	48·7	40·0	44·5	− 0·6	26	6	7	1·44	−0·06	6·3	− 7·4	11	−11
	Killarney	54	36	48·7	39·4	44·2	+ 0·4	26	7	6	1·44	?	*	*	*	*
	Foynes	52	33	46·5	36·8	41·8	− 0·5	13	22	6	1·34	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	52	29	47·1	38·9	43·2	− 2·9	21	9	6	0·46	−0·36	*	*	*	*
	Jersey	50	12	44·9	33·0	39·2	− 3·1	8	35	6	0·70	0·00	13·2	− 2·9	22	− 4

Stations marked 𝔐 are in connection with the Royal Meteorological Society, and those marked 𝔖 with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

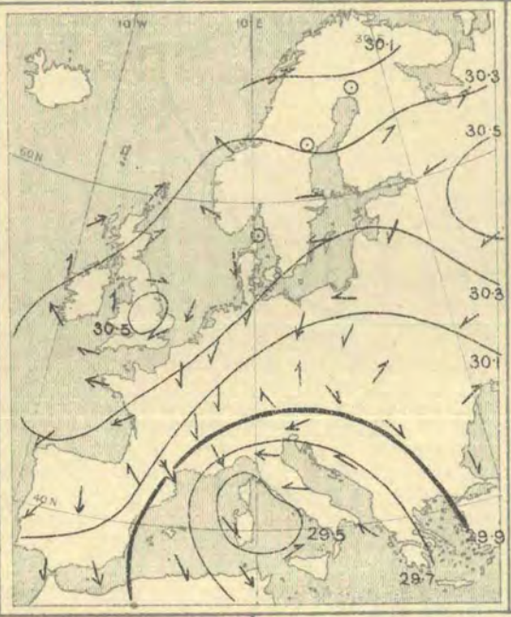
Sunday, 18th January.

Temperature and Weather.

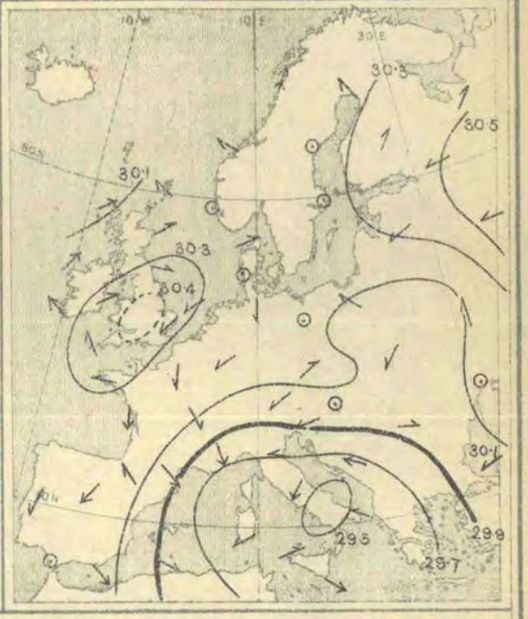
8 a.m.

Barometer and Wind.

8 a.m.



6 p.m.



Weather fine over the greater part of England, France, and Spain, also in Denmark and Holland; dull elsewhere, with rain in Tunis and snow at several of the Russian, German, and Austrian stations, as well as at Pesaro and Aumale. Snow showers falling during day in the extreme south and south-east of England and on the shores of the Adriatic; rain setting in at night on the west coasts of Ireland and Scotland and at Brindisi.

Temperature highest, (1) 46° at Brindisi, 42° at Nemours, and 41° at Lisbon, San Fernando, Oran, and Palermo; (2) 41° at Valencia Island, 40° at Stornoway, 39° at Roche's Point, and 38° at Belmullet. Lowest, (1) −19° Fahr. at Kuopio, −1° at Hangö, +4° at Helsingfors, and 5° at Stockholm; (2) 2° at Buda Pesth, 3° at Munich, 4° at Hermanstadt, and 6° at Lyons; (3) 11° at York, 14° at Loughborough, and 15° at Oxford. Daily maxima below the freezing point in many parts of England, below 20° in some parts of central France, and below 16° in Germany, but as high as 52° at Palermo and Oran and 54° at Malta.

Wind moderate to fresh from the South-Eastward or Southward in Ireland, and from South-West in the Hebrides; light from the same quarters in the west of Norway. Moderate from the North-Eastward or Northward over the greater part of France, Spain, Germany, the Netherlands, and the south of England. Light and variable over Russia and Austria and a well-marked cyclonic circulation reported over the Mediterranean; North-Westerly winds blowing strongly in the south of France. No important change occurring during day.

Barometer highest, 30·5 ins. and upwards to 30·4 ins. in an anticyclone covering our Islands and the North Sea, also over central Russia; 30·3 ins. and upwards in a broad "col" lying over Scandinavia, the Baltic and Finland. Lowest, 29·5 ins. and less in a well-marked depression lying over Corsica and Sardinia, 29·8 ins. and less in a shallow system over eastern Austria. General fall of barometer taking place over our Islands later and a rise over Russia; high-pressure area in latter region moving southwards slightly.

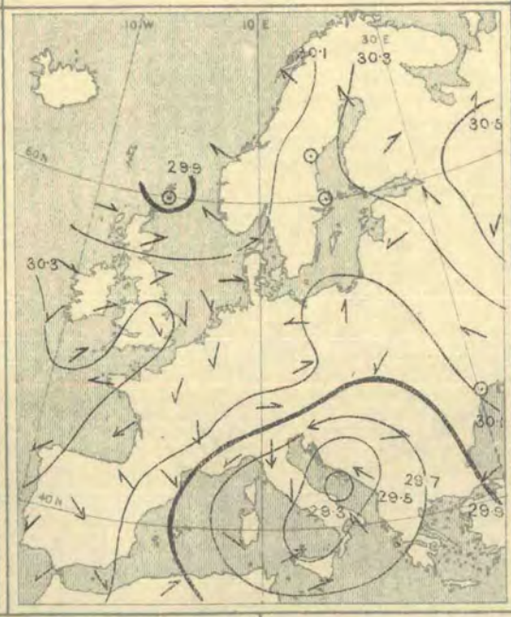
Monday, 19th January.

Temperature and Weather.

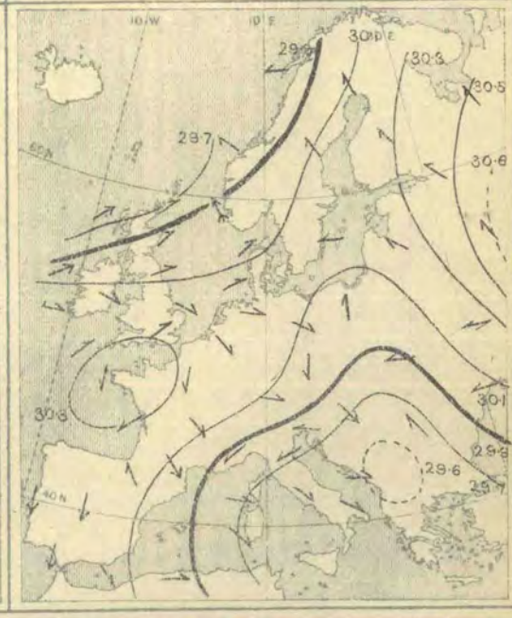
8 a.m.

Barometer and Wind.

8 a.m.



6 p.m.



Weather fine and bright in the west of Norway and in several parts of England; dull generally elsewhere, with snow not only in many portions of central and southern Europe, but also at Algiers, rain at Nemours, at some Irish stations, and at Sumburgh Head; snow at Dungeness very heavy. More than an inch of rain at Stornoway later and a considerable fall of snow at Buda Pesth; only a few hundredths of fall elsewhere—partly snow and partly rain.

Temperature risen decidedly over northern, south-eastern, and southern Europe, but still very low generally, especially over the more inland districts. Morning readings as low as 3° to 15° over northern and central Russia, central and southern Germany, some parts of France, and the inland parts of England; higher over Scotland and Ireland, exceeding 40° in the south-west of Ireland, in the extreme south, and at Brindisi and Malta only. Rising very decidedly over the United Kingdom later and frost beginning to break up.

Wind mainly Westerly over the northern parts of the British Islands, South-Easterly in Norway; extremely variable over Europe as a whole, but a cyclonic circulation of strong winds prevailing over all the eastern half of the Mediterranean, Italy, and the Adriatic. Fresh Westerly winds over Algeria and Tunis. South-Westerly winds setting in over our Islands later, and beginning to blow hard in the north-west and north. Cyclonic wind over Mediterranean falling light.

Barometer highest, (1) 30·6 ins. to 30·2 ins. in an anticyclone over Russia; (2) 30·3 ins. and more to 30·2 ins. in another over the Bay of Biscay, the west and north of France, England, and Ireland. Lowest, 29·5 ins. to 29·3 ins. in a well-marked depression over the Adriatic and Italy, 29·9 ins. and less in another (small one) over the Shetland Islands. Very shallow local disturbances off the south of Ireland. New large depression approaching our north-west coasts from the westward later, and spreading over our Islands generally. Mediterranean depression beginning to fill up.

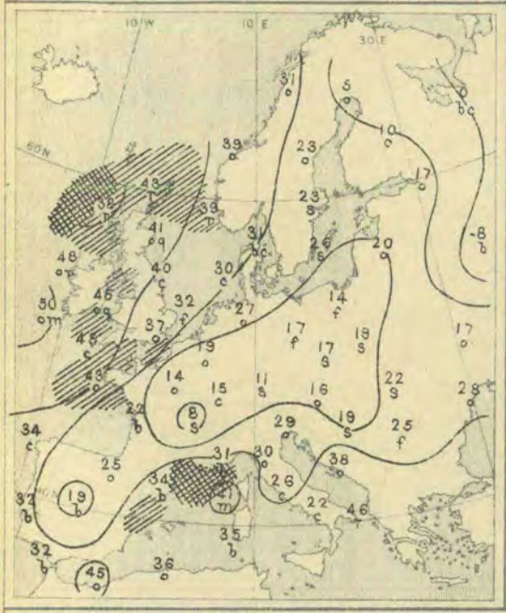
Judd & Co. Lith. 73 & 75, Farringdon Rd. & Doctors Commons

II.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 20th January.

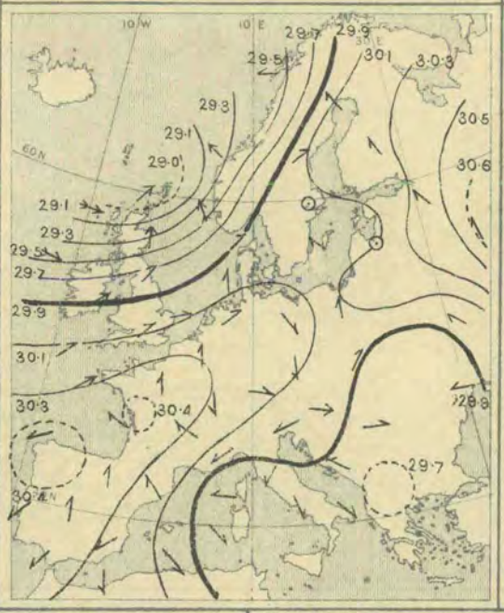
Temperature and Weather.

8 a.m.

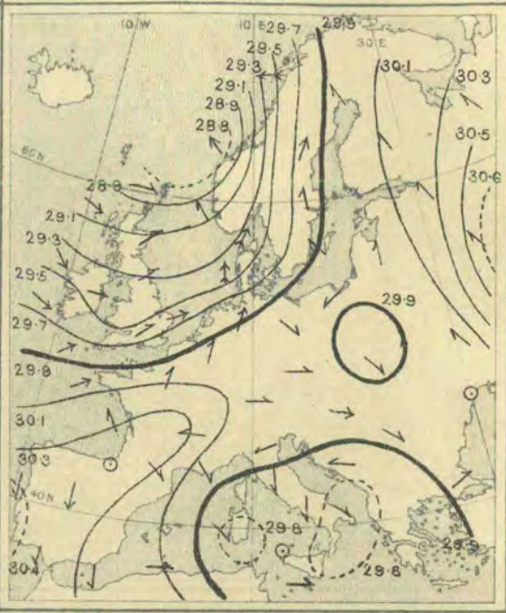


Barometer and Wind.

8 a.m.



6 p.m.



Weather changing very decidedly over north-western Europe, cloudy and overcast at the British and Irish stations generally, as well as over most parts of the Continent, excepting over the south-west of France and the Spanish Peninsula; squally with rain in many parts of our Islands, foggy in the extreme east of England and parts of north Germany, snowing over Austria, south Germany, and some of the southern parts of France. Sleet, hail, or rain over the British Islands later, but amounts not large. A good deal of rain at Algiers and Brindisi.

Temperature risen rapidly over the British Islands—as much as 25° to 28° over the midland counties, risen less over south Germany, Austria, and the Gulf of Finland, fallen over Russia. Morning readings exceeding 40° in the west and north of the United Kingdom and at Brindisi, and exceeding 32° over the greater part of England as well as in Norway. Much lower elsewhere; above 20° over Hungary and southern Russia, below 20° over central France and greater part of Germany, but −8° Fahr. at Moscow, 0° (zero) at Archangel, 5° at Uleaborg, 10° at Kuopio and also at Kharkov. Rising later to between 40° and 51° over the United Kingdom as a whole, but tending to fall again in the west and north-west at evening.

Wind (1) light to moderate from South-East over Russia, Northerly to Westerly, fresh, over Austria and eastern Germany, very variable over France, mainly Easterly to North-Easterly over the northern parts of the Mediterranean. Strong Southerly to Westerly current prevailing over the North Sea and British Isles, and blowing a gale at the extreme northern and north-western stations. Veering Westward very generally later and increasing to a moderate gale on our south coasts and in the Channel.

Barometer highest, 30·7 ins. to 30·1 ins. in an anticyclone over Russia, 30·4 ins. and more to 30·2 ins. in another over Spain, the Bay of Biscay and France—the two systems united by a "col" stretching across Germany. Lowest 29·0 ins. and less in a depression having its centre off the north of Scotland, 29·9 ins. and less in a larger but much shallower and less well defined system over the eastern and south-eastern parts of the Mediterranean. Northern depression moving north-eastwards later, but spreading southwards all over the British Islands and north-western Europe as it did so.

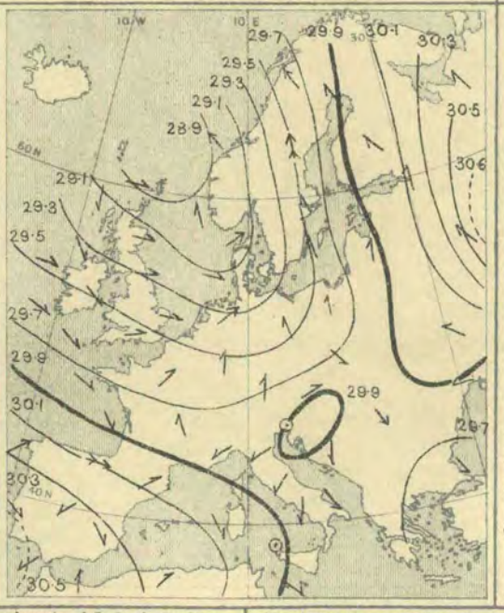
Wednesday, 21st January.

Temperature and Weather.

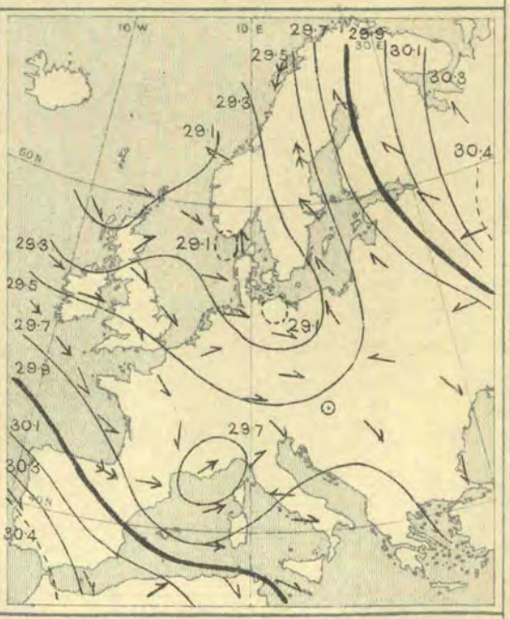
8 a.m.

Barometer and Wind.

8 a.m.



6 p.m.



Weather fair generally over England, with the eastern and central parts of Ireland, cloudy or overcast elsewhere, unsettled over northern and central Europe. Snow and hail squalls prevalent in the north-western parts of the United Kingdom, and also over western Germany and the south of France, rain over the Bay of Biscay and north of Spain, as well as over southern Russia. Rain or snow later over all but the eastern and inland parts of the Kingdom; heavy rains in the south of France and Italy, snow over France, Germany, and southern Russia.

Temperature risen rapidly over France, Finland, and northern Russia, and to a smaller extent over Spain and the Mediterranean; fallen decidedly in our Islands. Morning readings exceeding 50° at Corunna, exceeding 40° on the southern shores of the Mediterranean, on the Atlantic coasts of western Europe, and also in the south-west of the British Isles, much lower elsewhere; below the freezing point in Scotland, some parts of England, Germany, and Sweden, below 20° over Hungary and Austria, and as low as 2° Fahr. at Warsaw and −9° at Moscow. Rising to between 40° and 47° over England and Ireland later, but falling again towards night, frost "giving" at the German stations during the day.

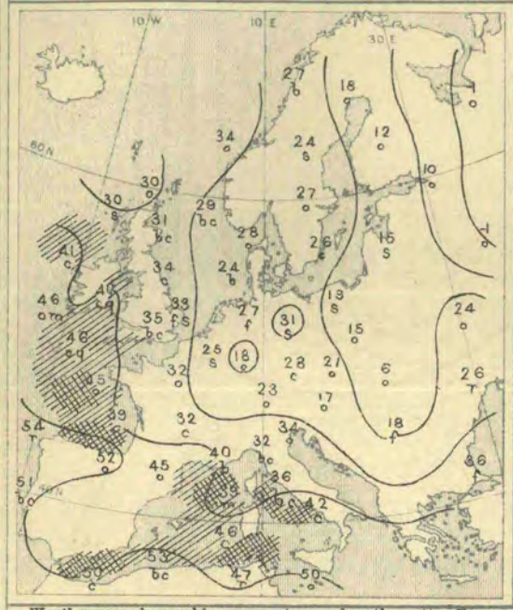
Wind blowing a gale from South-East over Scandinavia, and a moderate to fresh breeze from the same quarter over Finland, the Baltic, and north Germany. Fresh North-Westerly and Westerly over the British Islands, Westerly over the Bay of Biscay, South-Westerly over south Germany, variable elsewhere. Backing to the South-Westward in Ireland later, and increasing in force at Mullaghmore. Westerly and South-Westerly gales setting in on the northern shores of the Mediterranean.

Barometer highest, 30·6 ins. to 29·9 ins. over Russia, and 30·4 ins. and more to 30·0 ins. over the Spanish Peninsula, the western parts of the Mediterranean, and Algeria. Lowest, 28·9 ins. and less in a complex depression, having its centre off the west of Norway, and spreading thence in a southerly direction over the North Sea; 29·7 ins. and less in another shallow disturbance covering Greece, Turkey, and the greater part of Asia Minor. New shallow disturbance approaching the north of Ireland later, and another deeper one forming over the south of France and neighbouring parts of the Mediterranean.

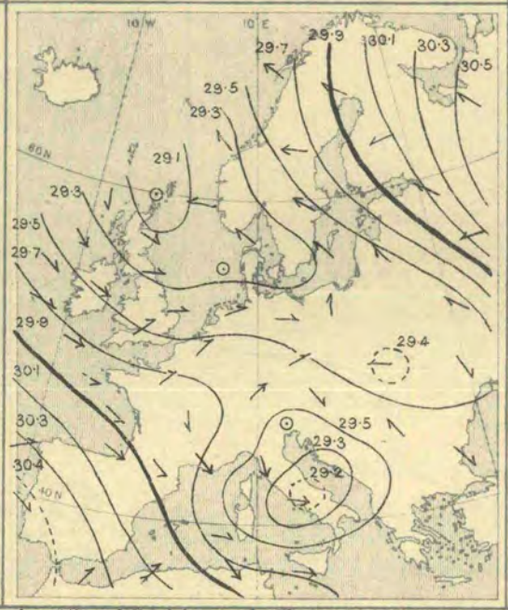
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

Thursday, 22nd January.

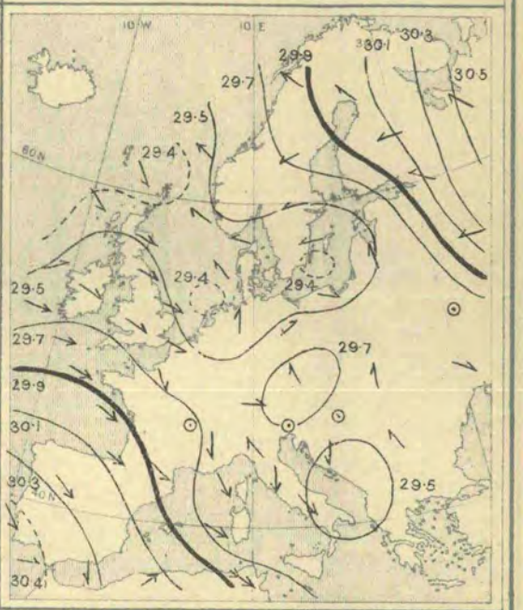
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather very changeable over western and north-western Europe—clear at times, dull and showery at other times; very dull over northern and eastern Europe, with snow or rain in places, fog over Hungary and on the shores of the Black Sea. Fine over Italy and the south of France. Snow or rain showers over all parts of our Islands, Holland, and the greater part of France later, but amounts measured not large except at Limoges. Very heavy falls reported at Lesina and Kharkov.

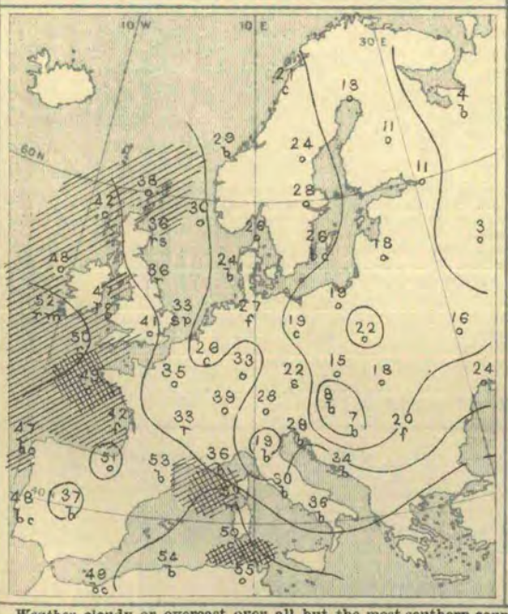
Temperature changing fitfully from frost to thaw, and *vice versa*, over the western and north-western countries, still very low over eastern and central Europe. Morning readings ranging from −1° Fahr. to +15° over the greater part of Russia and Poland, and below 20° over Austria and at Wiesbaden; varying from 20° to 30° and more over north Germany, above 30° over England and France, and as high as 40° to 46° on our extreme west and south-west coasts, and 50° and more on the coasts of Spain, Portugal, and many parts of Algeria. Rising to 50° or more at several of our western stations later and at Cagliari, and to between 40° and 45° over England, but becoming frosty over the latter country at night.

Wind moderate to strong from East and South-East over Russia and northern Europe generally, North-Westerly to Westerly over the British Isles, South-Westerly over Germany, very variable and light over central France and Spain, but strong to a gale from North-West and West over the Mediterranean and blowing a gale from South-West at Algiers. Backing to South-West on our north-western coasts later and increasing in strength; North-Westerly gales felt over the Mediterranean.

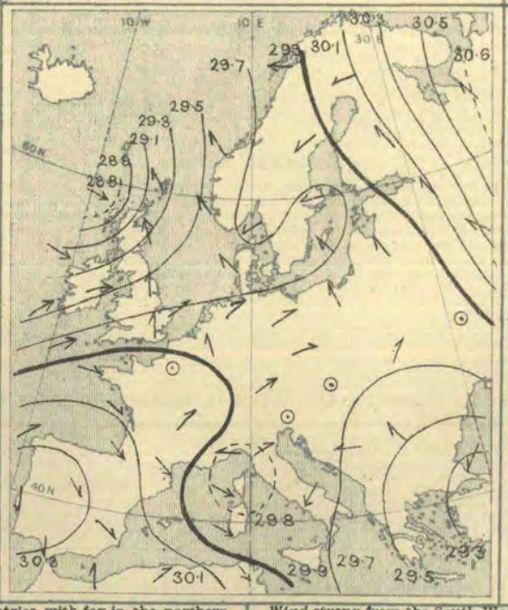
Barometer highest, 30·3 ins. to 29·8 ins. over northern and central Russia, 30·4 ins. and more to 30·0 ins. over the Iberian Peninsula and Algeria. Lowest, 29·1 ins. and less in a depression over and in the neighbourhood of the Shetlands, and 29·4 ins. and less in a "hollow" extending thence over the North Sea and Denmark to eastern Germany and the south of Russia; 29·3 ins. to 29·5 ins. in another depression over the Adriatic, Italy, and the neighbouring parts of the Mediterranean. Northern depression filling up later and new one advancing towards our north-west coasts. Italian depression moving south-eastwards.

Friday, 23rd January.

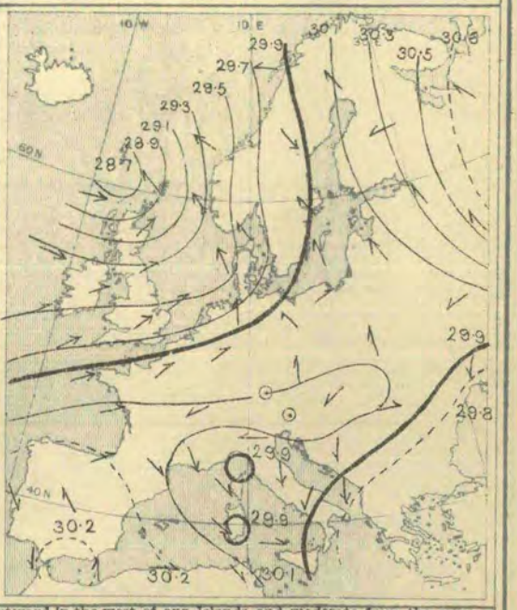
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather cloudy or overcast over all but the most southern countries, with fog in the northern parts of Germany and France, rain in several parts of the United Kingdom, and snow at some of the German stations. Fine in Italy, Spain, Algeria, and the south of France. Rain falling during day over nearly the whole of western Europe, snow in most of the northern countries, fine in the south and south-east. Lunar halos seen in some parts of the United Kingdom.

Temperature highest, (1) 56° at Tunis, 55° at La Calle, 54° at Algiers, and 53° at Perpignan; (2) 52° at Valencia Island, and 50° at Parsonstown, Roche's Point, and Scilly; above 45° in all the more western parts of the United Kingdom. Lowest, (1) 3° at Moscow, 4° at Archangel, 11° at Ulealborg, St. Petersburg, and Kharkov; (2) 7° at Buda Pesth, 8° at Vienna, and 15° at Cracow; considerably below the freezing point in nearly all parts of Russia and central Europe, and as low as 19° at Florence. Rising during day to 50° at some of the English stations, exceeding that point in Ireland and the west and south of France; exceeding 60° at some stations on the southern side of the Mediterranean.

Wind strong from the South-Westward in the west of our Islands, and moderate from the same quarter over the Netherlands, Germany, and the east and south of England. Strong to a gale from the Southward in the north and east of Scotland, South-Easterly or Easterly over Scandinavia, Russia, Denmark, and the Baltic, Westerly in France, North-Westerly in Spain, variable in Italy, Southerly or South-Westerly in Algeria. Subsequently veering to the Westward in the extreme north-west of our Islands; increasing to a gale from the South-Westward over the Channel at night and to a gale from South-East in Norway.

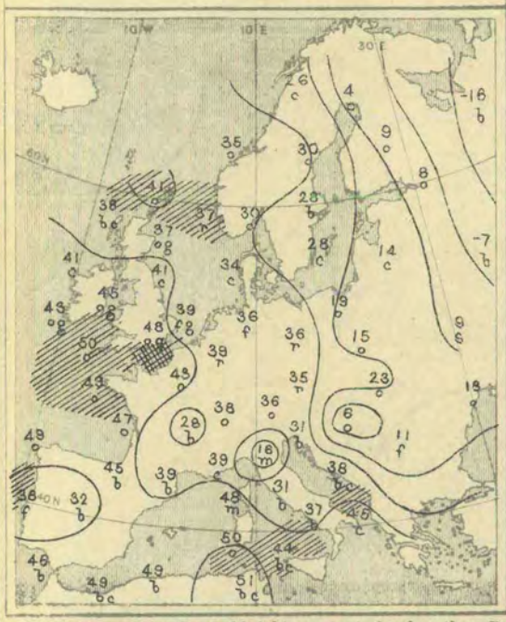
Barometer highest, 30·6 ins. and upwards in a large anticyclone lying over northern Russia, 30·3 ins. and upwards in another system lying over the Spanish Peninsula. Lowest, 28·8 ins. and less in a deep depression lying off the north-west of Scotland, 29·3 ins. and less in a large system over Asia Minor, 29·8 ins. and less in another disturbance lying over Corsica, Sardinia, and the Gulf of Genoa. Depressions in north and over Mediterranean subsequently moving eastwards, the former spreading out in a south-easterly direction. Large low-pressure area over Asia Minor continuing.

Judd & Cº Lith. 73 & 75, Farringdon Rd & Doctors Commons

Saturday, 24th January.

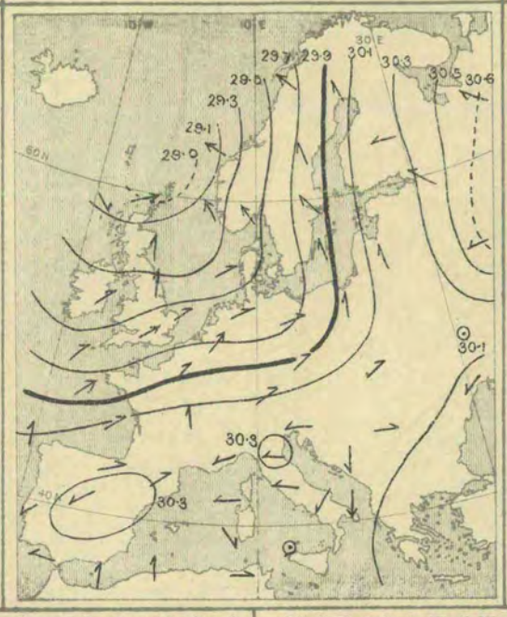
Temperature and Weather.

8 a.m.

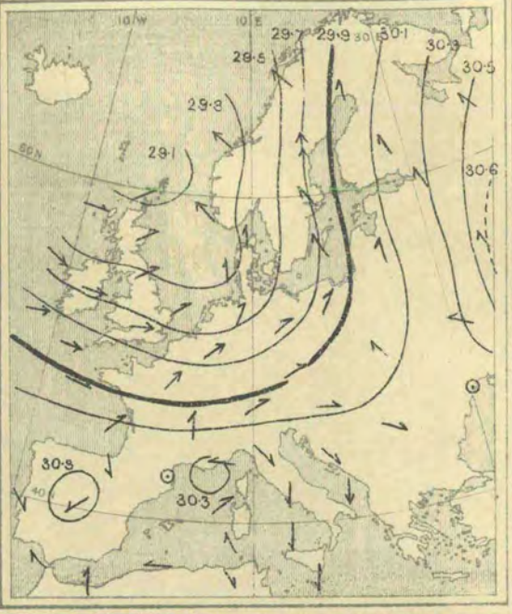


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over central and northern Russia, as well as over Algeria and the Spanish Peninsula, cloudy or overcast in most other regions, showery and squally over the British Islands (especially the southern counties) and on the shores of north-western Europe generally. Rain very general in all these regions during day, hail on our north-west coasts, snow over Scandinavia, but weather fair as a whole over Russia and southern Europe.

Temperature risen quickly over central Europe, fallen over Russia, not much changed elsewhere. Morning readings exceeding 40° on southern side of the Mediterranean, the west of France, and the whole of Ireland and England; below that value over Germany and the North Sea, and as low as −16° Fahr. at Archangel, −7° at Moscow, +3° at Kharkov and Uleaborg, 6° at Buda Pesth, 9° at Kuopio and Kiev, 11° at Hermanstadt. Rising later to between 45° and 50° over Ireland and England and to upwards of 50° over many parts of southern Europe, but scarcely exceeding 40° in Scotland.

Wind Westerly to North-Westerly in Ireland, South-Westerly over Great Britain, France, and Germany (strong to a gale at several of the southern stations), Southerly over the Baltic, South-Easterly over Finland and Scandinavia. Very variable and light over southern and south-eastern Europe. Veering Westward over Great Britain, the Channel, and the north of France towards night; not much change elsewhere.

Barometer highest, 30·6 ins. and more to 30·0 ins. over Russia, 30·3 ins. and more to 30·2 ins. over the Iberian Peninsula, and exceeding 30·2 ins. over the Mediterranean. Lowest, 29·0 ins. and less near the centre of a depression lying off the north-west of Europe, and about 30·0 ins. on the northern shores of the Black Sea and over European Turkey. Rising slightly in our Islands later, but depression in north-west stretching south-eastwards in the form of a "hollow" over the North Sea to Germany.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟩⟩⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

In the course of this week a very decided change has taken place in the distribution of pressure, and consequently in the winds over Europe. The anticyclonic system which had been for so long prevalent over the British Islands and northern Europe, and which at 8 a.m. on the 18th stretched from the Atlantic across Ireland, England, the Channel, and North Sea to the Baltic, Finland, and Russia, broke up during the 19th and 20th, and a large well-marked cyclonic system appeared off the north of Scotland, and spread thence in a southerly and south-easterly direction, over the United Kingdom and the North Sea to France and Germany. Mild Westerly and South-Westerly winds and gales spread quickly over the British Islands and Southerly gales over the eastern shores of the North Sea; temperature rose decidedly, the long frost giving way over England late on the 19th, over the north of France about a day later, and over the remainder of France on the 22nd or 23rd. The thaw, however, did not reach Germany till the end of the week, and was less decided both over that country and France than it was in our Islands. At the close of the week cyclonic conditions were prevalent all over north-western Europe.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 14.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH					THURCASTON	15·0	+7·0	26	+12
OSWALDKIRK	16·2	?	29	?	TORQUAY	15·4	?	26	?
WORKSOP	11·2	+2·4	19	+4	CAVAN	10·5	?	19	?

Judd & Co Lith 73 & 75, Farringdon Rd & Doctors Commons.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, AND 21, DREWY STREET, GLASGOW; AND HODGES, FIGGIS, & CO., 104, GRAFTON STREET, DUBLIN.

VOL. VIII. No. 4]. *Third Series.* WEEK ENDING SATURDAY, 31ST JANUARY, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 20.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	For the Week. Difference from Mean.	For the Week. Below 42°	For the Week. Difference from Mean.	From January 4th, 1891. Above 42°	From January 4th, 1891. Difference from Mean.	From January 4th, 1891. Below 42°	From January 4th, 1891. Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	49	31	45·8	36·9	41·6	3 above.	11	+ 4	22	−12	17	−13	161	+ 29
	1. SCOTLAND, EAST -	53	29	45·5	36·3	41·1	4 above.	10	+ 1	24	−15	12	−21	192	+ 32
	2. ENGLAND, N.E. - -	50	33	46·8	37·2	42·2	4 above.	22	+14	13	−24	22	− 4	203	+ 52
	3. ENGLAND, EAST -	53	33	47·8	37·3	42·7	5 above.	25	+17	13	−29	25	− 3	266	+ 91
	4. MIDLAND COUNTIES	53	31	48·6	37·8	43·5	5 above.	28	+18	12	−29	28	− 8	235	+ 60
	5. ENGLAND, SOUTH -	53	33	47·9	39·7	43·8	4 above.	22	+11	6	−24	22	−19	220	+ 87
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	50	33	43·0	39·6	43·0	4 above.	17	+ 7	7	−22	25	−15	128	+ 9
	7. ENGLAND, N.W. -	52	32	43·9	38·3	42·8	4 above.	21	+13	10	−19	21	−12	170	+ 46
	8. ENGLAND, S.W. -	53	33	43·8	41·3	45·3	4 above.	26	+10	2	−20	31	−29	163	+ 72
	9. IRELAND, NORTH -	52	28	47·7	37·7	42·9	2 above.	24	+10	12	−12	34	−21	130	+ 27
	10. IRELAND, SOUTH -	54	33	50·1	39·4	45·0	2 above.	32	+12	7	−12	51	−30	119	+ 39
	— CHANNEL ISLANDS -	53	40	50·8	43·7	47·4	3 above.	38	+17	0	− 9	53	−31	83	+ 42

Rainfall.

	DISTRICTS. (See p. 20.)	For the Week. Number of Rainy Days.	For the Week. Total Fall.	For the Week. More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	From January 4th, 1891. Difference from Mean.	From January 4th, 1891. Total Fall.	From January 4th, 1891. Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	7	18	6 more.	24	+ 4	5·0	+ 0·1
	1. SCOTLAND, EAST -	5	3	2 less.	14	0	1·3	− 1·3
	2. ENGLAND, N.E. - -	3	2	3 less.	15	+ 2	1·0	− 0·7
	3. ENGLAND, EAST -	5	6	2 more.	19	+ 5	1·8	0·0
	4. MIDLAND COUNTIES-	6	8	3 more.	14	0	1·9	− 0·4
	5. ENGLAND, SOUTH -	7	12	6 more.	17	+ 3	2·6	+ 0·2
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	6	16	3 more.	18	0	4·0	− 1·3
	7. ENGLAND, N.W. - -	6	6	1 less.	13	− 2	2·0	− 0·9
	8. ENGLAND, S.W. - -	6	14	5 more.	15	− 2	3·4	− 0·4
	9. IRELAND, NORTH -	6	6	2 less.	19	+ 1	1·9	− 1·2
	10. IRELAND, SOUTH -	6	9	0 (average)	17	0	2·4	− 1·4
	— CHANNEL ISLANDS -	6	11	4 more.	17	− 1	2·3	− 0·8

Bright Sunshine.

	DISTRICTS. (See p. 20.)	For the Week. Hours recorded.	For the Week. Difference from Mean.	For the Week. Percentage of possible Duration.	For the Week. Difference from Mean.	From January 4th, 1891. Hours recorded.	From January 4th, 1891. Difference from Mean.	From January 4th, 1891. Percentage of possible Duration.	From January 4th, 1891. Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	7	− 2	12	− 5	25	+ 3	12	+ 1
	1. SCOTLAND, EAST -	13	− 1	23	− 2	43	− 2	20	− 2
	2. ENGLAND, N.E. - -	13	+ 4	22	+ 6	44	+13	20	+ 6
	3. ENGLAND, EAST -	22	+ 9	36	+15	69	+25	30	+10
	4. MIDLAND COUNTIES-	21	+10	34	+17	68	+31	30	+13
	5. ENGLAND, SOUTH -	17	+ 5	27	+ 8	70	+32	30	+13
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	13	+ 3	23	+ 7	52	+22	24	+10
	7. ENGLAND, N.W. - -	17	+ 7	29	+11	56	+23	25	+10
	8. ENGLAND, S.W. - -	17	+ 4	27	+ 8	75	+32	32	+13
	9. IRELAND, NORTH -	23	+11	39	+21	63	+25	29	+11
	10. IRELAND, SOUTH -	26	+12	43	+21	77	+28	34	+12
	— CHANNEL ISLANDS -	29	+11	46	+19	97	+34	40	+14

General Remarks.

Weather has been mild and very unsettled in all parts of the Kingdom. Rain has fallen almost daily in the west and north and very frequently elsewhere; intervals of sunshine have occurred, however, in nearly all districts.

Temperature has been above the mean, the excess having varied from 2° in Ireland to 4° in most parts of Scotland and to 4° or 5° over England. The highest of the maxima, which were recorded on very irregular dates, ranged from 49° in "Scotland N." to 53° in most of the other districts and to 54° in "Ireland S." The lowest of the minima were generally recorded on the 25th and varied from 28° in "Ireland N." and 29° in "Scotland E." to 34° in "England N.E." and to 40° in the "Channel Islands."

Rainfall has been rather less than the mean in "Scotland E.," "England N.E." and "N.W.," as well as in "Ireland N.," while in "Ireland S." it has just equalled the normal. In all other districts an excess is shown, that in the north of Scotland and the south and south-west of England being large.

Bright Sunshine has again been fairly prevalent for the time of year, except in the extreme north; the percentage of the possible duration has ranged from 46 in the "Channel Islands," 43 in "Ireland S.," and 39 in "Ireland N.," to 22 in "England N.E." and 12 in "Scotland N."

Barometer and Wind.—The distribution of pressure has been continuously favourable for South-Westerly winds, the barometer having been highest in the south and south-east, while a series of depressions, moving north-eastwards, has skirted our western and northern coasts; on the morning of the 31st the centre of a very deep disturbance lay over our north-west coasts and caused very strong South-Westerly to Westerly gales in the north of Ireland and fresh or strong winds in the north and west generally. Later in the day a subsidiary system passed eastwards over the Channel and the south of England.

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III.—DATA from which the SUMMARY on page 19 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ℌ	46	36	44·9	38·6	41·9	+ 2·6	8	15	6	0·35	+0·03	*	*	*	*
	Stornoway	48	34	46·4	36·3	41·6	+ 2·5	12	25	7	2·07	+0·97	9·2	+ 0·2	17	0
	Wick	47	33	44·4	35·4	40·1	+ 2·0	7	26	6	0·33	−0·13	*	*	*	*
	Lairg ℌ	48	31	45·6	34·1	40·1	+ 3·4	10	32	6	0·56	−0·22	*	*	*	*
	Glencarron ℌ	48	33	45·8	36·5	41·3	+ 3·6	11	23	7	3·13	+0·92	*	*	*	*
	Fort Augustus ℌ	47	33	46·4	36·0	42·4	+ 3·5	20	11	7	2·20	+1·18	4·5	?	8	?
	Fort William ℌ	49	35	47·4	39·6	43·7	+ 4·2	22	7	7	3·41	+1·16	5·7	?	10	?
1. SCOTLAND, E.	Nairn	53	32	47·1	35·4	41·5	+ 3·6	14	28	5	0·23	−0·21	*	*	*	*
	Aberdeen	47	32	45·1	36·4	40·9	+ 2·8	9	23	5	0·18	−0·33	17·0	+ 3·2	30	+ 5
	Braemar ℌ	45	29	42·9	35·6	39·4	+ 4·5	3	24	6	0·65	−0·13	9·3†	? †	17†	?†
	Ochtertyre ℌ												*	*	*	*
	Leith	52	34	48·1	38·6	43·5	+ 3·8	25	10	4	0·06	−0·36	*	*	*	*
	Marchmont ℌ	47	32	44·1	35·6	40·0	+ 2·8	6	25	5	0·60	0·00	15·5	?	27	?
2. ENGLAND, N.E.	Alnwick Castle	48	35	45·4	37·4	41·6	+ 3·4	10	20	4	0·13	−0·36	*	*	*	*
	Durham	48	33	46·7	36·6	41·9	+ 4·7	13	24	2	0·08	−0·37	15·2	+ 3·5	26	+ 8
	Shields	50	34	48·0	38·0	43·2	+ 4·1	25	11	2	0·04	−0·36	*	*	*	*
	Scarborough ℳ	49	34	46·2	37·4	42·0	+ 3·1	12	13	4	0·17	−0·28	*	*	*	*
	York	50	34	48·3	36·7	42·7	+ 4·5	27	15	2	0·12	−0·30	10·6	+ 2·4	18	+ 4
	Spurn Head	48	35	45·9	36·9	41·6	+ 3·3	11	22	5	0·49	+0·17	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	50	34	48·4	37·0	42·9	+ 5·7	27	14	5	0·72	+0·29	21·5	+ 9·7	36	+17
	Yarmouth	47	35	45·0	36·0	40·7	+ 2·6	8	25	5	0·41	−0·04	*	*	*	*
	Geldeston	51	35	47·0	37·6	42·5	+ 3·9	22	12	4	0·36	0·00	20·4	+ 7·6	33	+11
	Cambridge	53	33	50·1	36·7	43·7	+ 5·5	34	15	6	0·44	+0·08	23·4	+10·6	38	+18
	Rothamsted	52	36	48·3	39·2	43·9	+ 6·3	25	8	7	1·02	+0·44	21·4	?	35	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	50	33	48·1	36·9	42·7	+ 4·5	26	14	5	0·27	−0·14	*	*	*	*
	Loughborough	53	35	50·0	37·9	44·2	+ 6·0	33	11	5	1·19	+0·72	*	*	*	*
	Stamford (Ketton Hall)	52	31	49·9	37·6	44·0	+ 6·0	32	12	7	0·63	?	*	*	*	*
	Cheadle ℳ	49	34	47·0	37·1	42·3	+ 5·1	23	14	6	0·74	+0·14	*	*	*	*
	Churchstoke ℳ	50	36	48·3	38·6	43·6	+ 5·0	25	10	7	1·24	+0·63	17·8	+ 5·9	30	+11
	Hereford ℳ	53	34	49·4	38·8	44·3	+ 5·1	30	9	5	0·64	+0·03	*	*	*	*
	Cirencester	51	32	48·1	36·4	42·5	+ 4·5	27	16	7	1·31	+0·62	20·0	+ 7·9	33	+14
	Oxford	52	35	49·1	38·7	44·1	+ 5·1	29	9	6	0·60	+0·10	24·3	+12·7	40	+23
5. ENGLAND, S.	London	53	36	50·0	40·1	45·3	+ 5·0	31	5	6	0·77	+0·30	15·7†	+ 9·6†	25†	+15†
	Strathfield Turgiss ℳ	52	35	48·9	39·0	44·2	+ 5·5	28	8	7	0·89	+0·35	*	*	*	*
	Dungeness	49	36	45·3	39·0	42·3	+ 2·5	15	8	6	1·13	+0·56	*	*	*	*
	Hastings (St. Leonards)	49	33	46·4	37·8	42·3	+ 2·2	20	12	7	1·28	+0·68	17·8	+ 2·8	29	+ 4
	Southampton	53	36	49·3	41·2	44·4	+ 4·2	20	2	7	1·94	+1·21	16·2	+ 3·8	26	+ 6
	Hurst Castle	48	37	46·4	40·6	43·6	+ 2·7	17	4	6	1·30	+0·65	*	*	*	*
	Stowell ℳ	50	35	48·7	39·9	44·5	+ 5·8	26	6	7	1·10	?	13·1†	? †	21†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart)	50	33	? 47·8	39·5	43·8	+ 4·2	? 23	? 7	7	3·13	+1·21	*	*	*	*
	Glasgow	49	34	45·8	39·3	42·7	+ 4·0	16	8	5	0·66	−0·27	4·9	− 2·3	9	− 2
	Ardrossan	47	37	45·4	41·3	43·4	+ 3·0	13	2	6	0·74	−0·20	*	*	*	*
	Glenlee ℌ	49	36	44·1	38·0	41·2	+ 3·5	6	17	7	2·64	+0·97	*	*	*	*
	Douglas (Isle of Man)	48	37	47·0	40·1	43·7	+ 3·1	20	5	6	0·73	−0·27	21·0	+ 9·9	36	+17
7. ENGLAND, N.W.	Newton Reigny	48	32	45·7	36·2	41·2	+ 4·0	10	25	7	0·99	+0·14	8·0	− 2·9	14	− 4
	Stonyhurst	50	34	46·3	37·2	41·9	+ 3·6	12	21	5	0·52	−0·33	12·8	+ 2·8	22	+ 6
	Blackpool ℳ	49	33	45·6	37·6	41·8	+ 3·3	10	19	6	0·74	+0·06	20·5	+10·4	35	+20
	Manchester	49	32	47·3	37·5	42·6	+ 4·4	23	13	5	0·51	−0·14	*	*	*	*
	Liverpool Obsy. (Bidston)	52	37	49·3	39·6	44·6	+ 4·9	28	7	5	0·22	−0·26	*	*	*	*
	Llandudno ℳ												25·6	+14·3	43	+24
	Holyhead	48	39	47·3	41·7	44·6	+ 2·5	19	1	7	0·71	+0·01	*	*	*	*
8. ENGLAND, S.W.	Llandovery	50	33	48·6	39·4	44·2	+ 3·5	26	7	7	2·26	+1·11	*	*	*	*
	Pembroke	48	41	47·1	43·3	45·3	+ 2·7	23	0	7	1·15	+0·34	14·0	0·0	23	+ 1
	Arlington (N. Devon)	49	35	48·1	39·6	44·0	+ 4·2	24	7	5	1·48	+0·48	*	*	*	*
	Cullompton ℳ	53	36	50·2	39·5	45·1	+ 5·0	32	7	6	0·99	+0·23	13·8	+ 2·7	22	+ 5
	Falmouth	52	41	50·1	42·8	46·6	+ 3·0	32	0	6	1·60	+0·41	21·4	+ 7·5	34	+14
	Plymouth	51	38	49·7	41·9	46·0	+ 3·7	28	0	6	1·63	+0·75	14·1	+ 1·3	22	+ 4
	Prawle Point	50	37	48·0	42·9	45·6	+ 3·5	25	0	6	0·73	+0·07	*	*	*	*
9. IRELAND, N.	Malin Head	49	35	46·0	38·6	42·5	+ 1·2	18	10	4	0·33	?	*	*	*	*
	Londonderry	51	36	47·1	38·2	42·8	+ 1·1	22	11	7	0·53	−0·35	*	*	*	*
	Mullaghmore	51	38	48·7	40·3	44·7	+ 2·2	26	5	6	0·64	−0·09	*	*	*	*
	Belmullet	49	34	47·9	40·3	44·3	+ 1·6	23	5	7	0·87	?	*	*	*	*
	Markree Castle	52	28	48·2	35·8	42·3	+ 2·1	28	17	7	0·90	+0·13	21·8	+ 9·3	37	+18
	Brookeborough	50	30	46·6	35·6	41·3	+ 1·5	13	27	5	0·65	−0·18	*	*	*	*
	Armagh	52	35	48·4	37·8	43·3	+ 3·2	27	12	4	0·41	−0·23	21·0	+ 9·0	36	+18
	Donaghadee	52	33	48·3	37·4	43·1	+ 2·6	27	13	6	0·23	−0·41	*	*	*	*
	Edgeworthstown	52	31	48·1	35·7	42·2	+ 3·6	28	18	7	0·57	−0·11	*	*	*	*
10. IRELAND, S.	Dublin	54	37	50·4‡	41·2	46·0‡	+ 3·9‡	31 ‡	2 ‡	3	0·19	−0·31	33·8	+20·1	56	+33
	Parsonstown	53	34	49·9	36·0	43·2	+ 3·0	34	17	5	0·41	−0·26	27·7	+14·9	46	+24
	Kilkenny	54	33	49·7	36·0	43·1	+ 1·4	33	17	6	0·66	−0·10	*	*	*	*
	Waterford	52	36	49·6	40·4	45·2	+ 2·0	29	4	6	0·66	−0·35	*	*	*	*
	Roche's Point	53	38	49·9	41·4	45·8	+ 2·2	29	2	7	1·40	+0·18	*	*	*	*
	Valencia	53	38	50·4	41·6	46·2	+ 1·1	31	1	7	1·77	+0·33	17·0	+ 2·3	28	+ 4
	Killarney	53	35	50·8	40·0	45·6	+ 1·6	34	6	7	1·61	?	*	*	*	*
	Foynes	52	36	49·8	38·8	44·5	+ 1·7	31	9	7	0·66	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	53	41	51·6	44·7	48·3	+ 2·2	44	0	6	1·17	+0·37	*	*	*	*
	Jersey	53	40	50·0	42·7	46·5	+ 4·2	32	0	5	1·04	+0·36	28·9	+11·1	46	+19

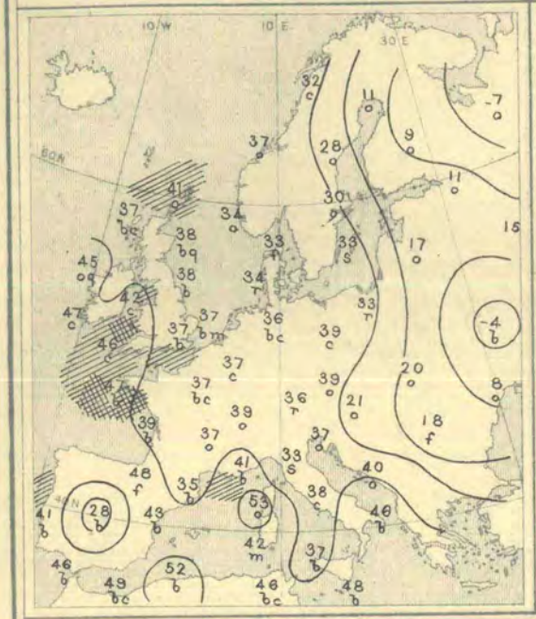
Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

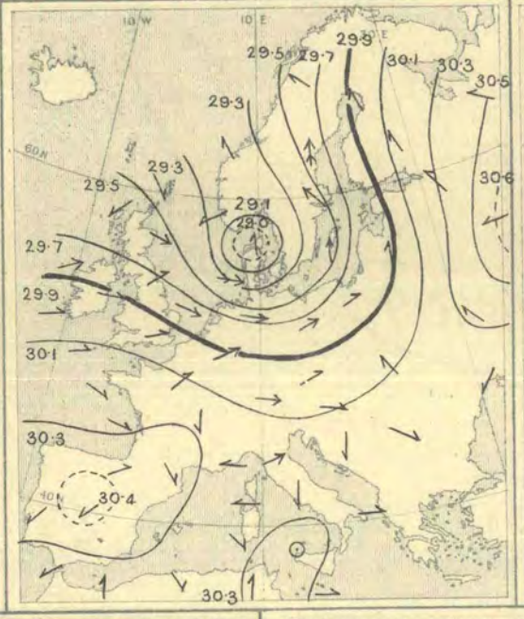
† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page. ‡ Errata.—The corresponding values in last week's Report should read "43·4," "38·6," "−3·5," "4," "32."

Sunday, 25th January.

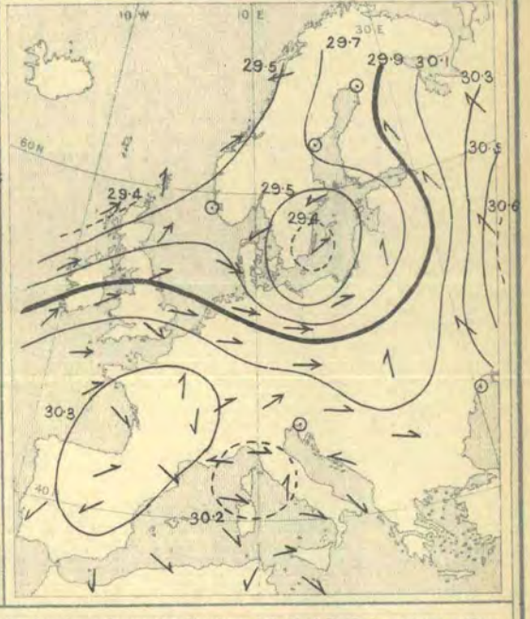
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the greater part of western Europe, including the British Islands, as well as at most stations on the Mediterranean shores and in the south of Russia; dull and unsettled elsewhere, with snow at several of the Finnish and Scandinavian stations, rain in Poland and north Germany, snow at Florence also. Rain falling later in Ireland and Scotland, heavily at Stornoway, and lightning occurring at Aberdeen; lunar halos seen in various parts of the Kingdom. No important change occurring at Continental stations.

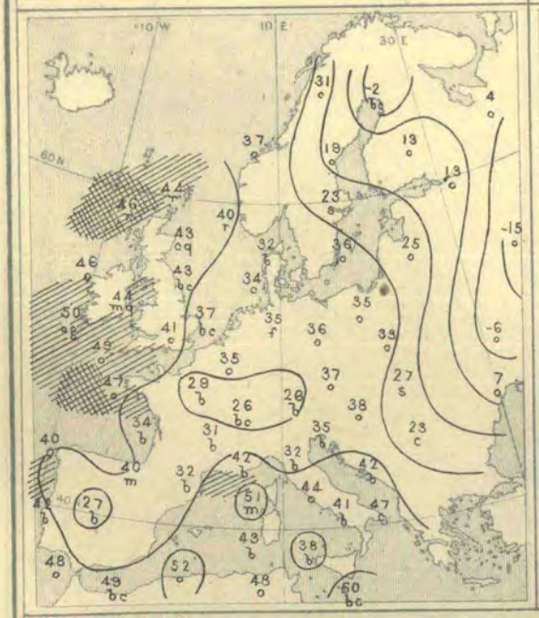
Temperature fallen somewhat over our Islands and France, risen in many parts of Russia, eastern Germany, Hungary, and the north of France. Morning readings exceeding 40° at the Mediterranean stations and on the Atlantic coasts of Spain, France, England, and Ireland, and exceeding 50° at Leghorn and Sanguinaire; much lower elsewhere. Lowest values, (1) −7° at Archangel, +4° at St. Petersburg, 9° at Uleaborg and Kuopio, 15° at Moscow; (2) −4° at Kiev, +6° at Kharkov, 8° at Odessa, 17° at Riga, 18° at Hermanstadt, 21° at Vienna. Rising during day to between 45° and 50° over our Islands as a whole, falling again briskly over England towards night.

Wind strong to a gale from the Southward over the Baltic and Gulf of Bothnia and from West over Holstein; fresh to strong from the Westward over the greater part of our Islands, South-Westerly over Germany, South-Easterly to Easterly (light) over Norway. Very variable over southern Europe and the Mediterranean. Backing to the Southward in Scotland and Ireland later and increasing in strength.

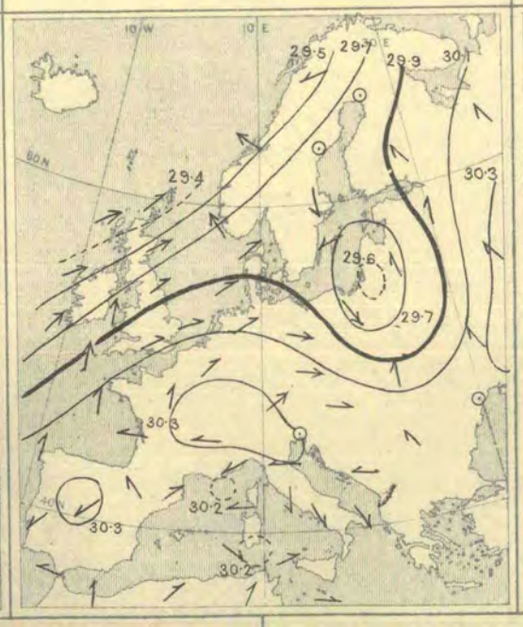
Barometer highest, 30·6 ins. and more to 30·0 ins. over Russia, 30·4 ins. and more to 30·2 ins. over Spain, the Mediterranean, and greater part of France. Lowest, 29·0 ins. and less to 29·2 ins. in a depression lying over Denmark, the Sound, and the south of Scandinavia, and below 29·8 ins. over north Germany, the Baltic, and nearly the whole of Sweden and Norway. Depression over Denmark moving eastwards later, barometer rising rapidly over the North Sea, but beginning to fall somewhat decidedly in the west and north-west of our Islands.

Monday, 26th January.

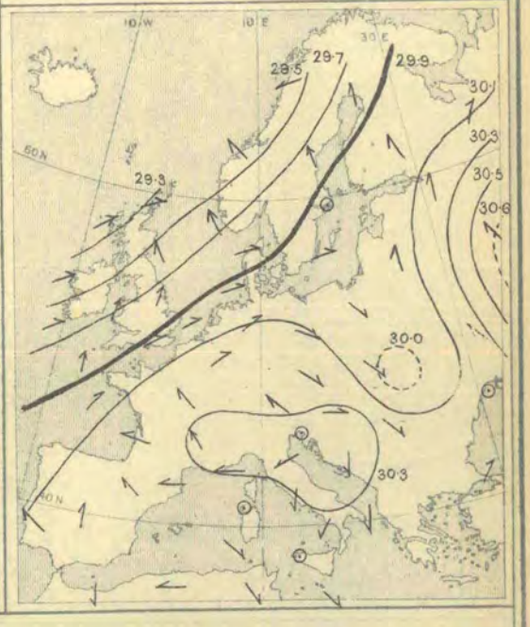
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright over France and southern Europe, and fair in several of the more eastern parts of Great Britain and Ireland. Dull elsewhere, with fog over Holland and north Germany, rain in the Shetlands and Hebrides, and snow at Stockholm, Helsingfors, and Lemberg. Rain falling later in most parts of the United Kingdom and Scandinavia, the largest amount being 0·7 in. at Stornoway. Weather clearing in Holland and Germany.

Temperature highest, (1) 52° at Algiers, 50° at Malta, 49° at Oran, and 48° at La Calle; (2) 50° at Valencia Island, 49° at Roche's Point and Scilly, and 47° at Brest; above 40° in all parts of our Islands excepting the east of England. Lowest, −15° at Moscow, −11° at Kharkov, −6° at Kiev, −2° at Haparanda, and +4° at Nicolaieff; below the freezing point over the greater part of France, and also over central Spain. Rising during day to 50° or a little more in several parts of the United Kingdom, but not exceeding 45° in the east of England.

Wind South-Westerly or Southerly over our Islands, Denmark, and the Netherlands, strong in force on many parts of our western and north-western coasts. Strong from the South-Eastward in the west of Norway. Moderate to strong from the Westward over Germany; light from the South-Eastward in Russia, from the Northward in Italy, from the North-Eastward in Spain, and from the Southward or South-Westward in Algeria. Moderate Southerly gales experienced during day in many parts of the United Kingdom.

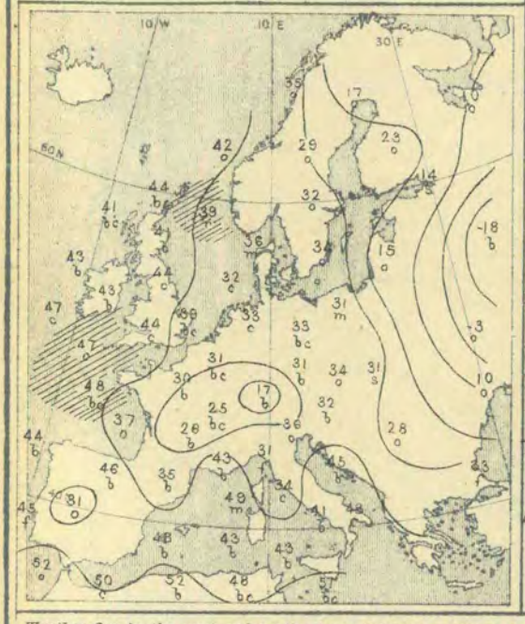
Barometer highest, 30·5 ins. and upwards in an anticyclone lying over the south of Russia, 30·3 ins. and upwards in two other systems lying respectively over south Germany and central France and over central Spain. Lowest, 29·4 ins. and less in a large depression lying to the north and north-west of Scotland, 29·6 ins. and less in a smaller disturbance lying over the Baltic Provinces. Gradients rather steep over our Islands. No important change occurring over western Europe during day, but depression over Baltic Provinces filling up.

Judd & Co Lith. 73 & 75. Farringdon Rd & Doctors Commons

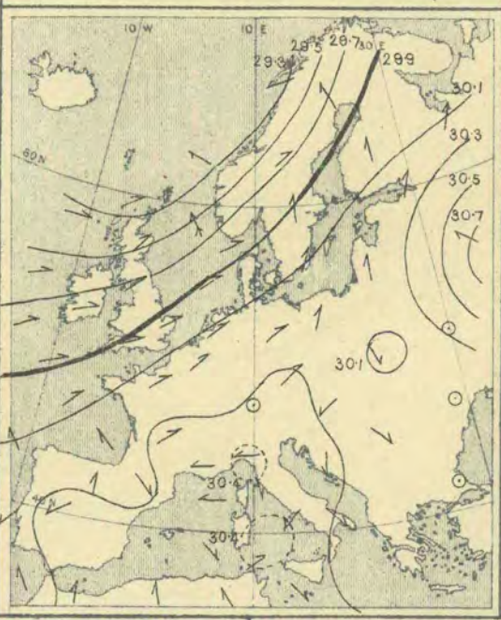
II.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 27th January.

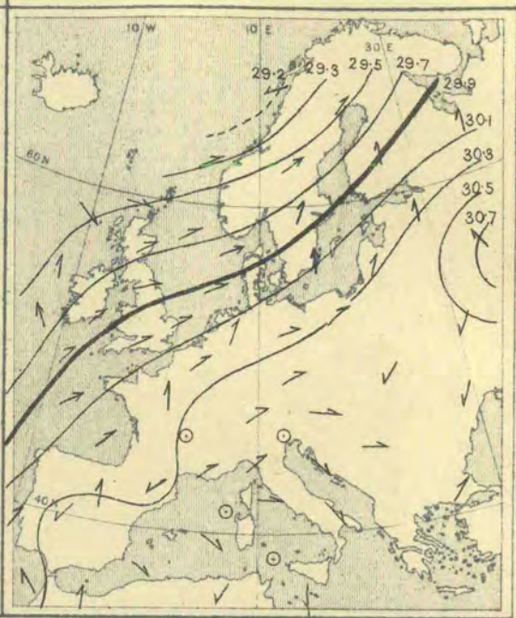
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine in the west and north of our Islands, as well as over the greater part of France, Germany, and southern Europe. Dull elsewhere, with rain over central England and snow at Uleaborg, St. Petersburg, and Lemberg. A little rain falling during day in the east and south of England and larger amounts in Ireland at night. Snow occurring over the northern parts of Sweden and Russia.

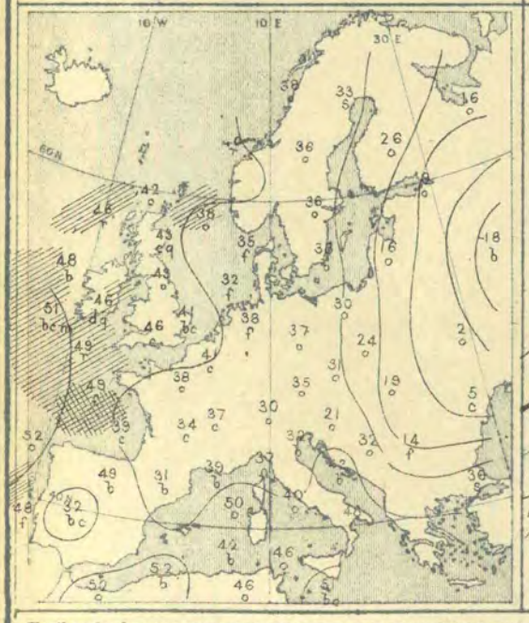
Temperature highest, (1) 52° at San Fernando and Algiers, 51° at Malta, and 50° at Oran; (2) 49° at Lorient, 48° at Brest, and 47° at Valencia Island and Scilly; above 40° in nearly all parts of the United Kingdom. Lowest, −18° Fahr. at Moscow, −3° at Kiev, −2° at Kharkov, +5° at Nicolaieff, 10° at Archangel and Odessa, below the freezing point in the west and south of Germany, the north of Italy, and the central parts of France and Spain. Subsequently rising to between 45° and 50° in many parts of the United Kingdom and reaching 52° at Oxford. Exceeding 55° in Algeria, Sicily, and the south of Spain.

Wind moderate to strong from the South-Westward over the greater part of north-western Europe, but South-Easterly or Easterly in the west of Norway. Light from the South-Eastward or Southward in Russia and from the Northward in Italy and Austria. Variable in Spain, light to fresh from the Southward in Algeria. Subsequently backing to the Southward or South-Eastward in the west of Ireland and increasing in force.

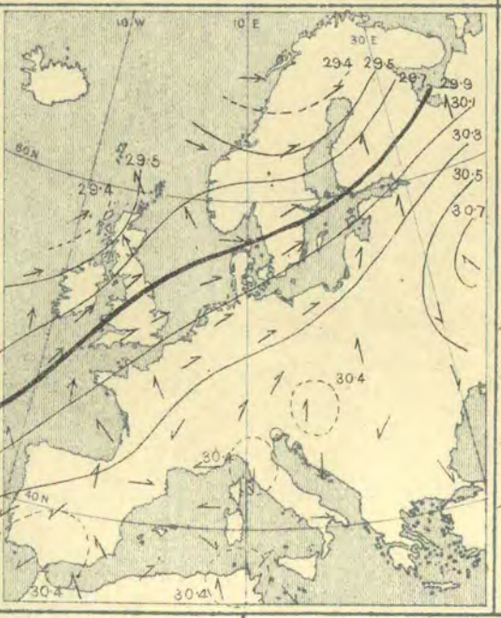
Barometer highest, 30·7 ins. and upwards in an anticyclone lying over central Russia, 30·3 ins. to 30·4 ins. and upwards in another system lying over Italy, the Mediterranean, the east of Spain, and the southern parts of France and Germany. Lowest, 29·3 ins. and less in a large depression lying to the northward of our Islands and the westward of Norway. Depression subsequently travelling away north-eastwards, but new disturbance beginning to show itself off the west of Ireland.

Wednesday, 28th January.

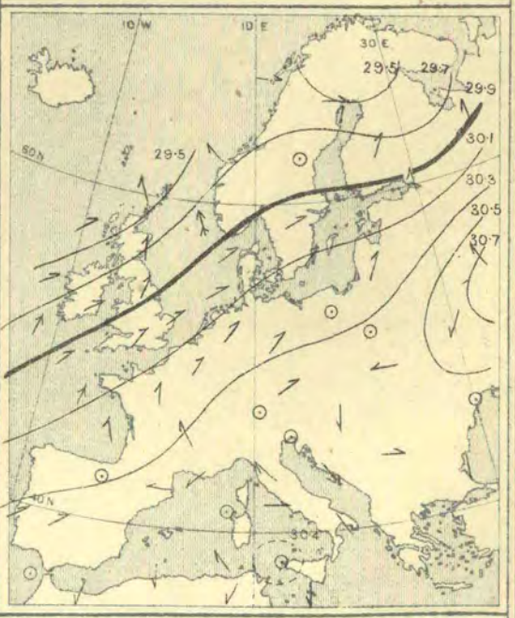
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather cloudy or overcast over the greater part of our Islands and the Continent, but fine in the west of Ireland and the east of England, as well as at some of the French, Austrian, and Algerian stations. Foggy in Denmark and the north-west of France, rainy in several parts of the United Kingdom, Holland, and Germany, snow falling at Haparanda and Helsingfors. Sky clearing later in the north of our Islands, but rain falling over England and the north of France, as well as at many of the Scandinavian stations.

Temperature highest, 52° at Coruna, Nemours, and Algiers, 51° at Valencia Island, Oporto, and Malta, and 49° at Mullaghmore, Roche's Point, Scilly, Brest, and Lorient; above 40° in all parts of the United Kingdom. Lowest, −18° at Moscow, +2° at Kiev, 5° at Odessa, 9° at St. Petersburg, and 12° at Nicolaieff; below the freezing point over Austria and some parts of France and Germany. Rising later to between 50° and 53° in many parts of the United Kingdom, and also in the west and south of France; exceeding 55° over southern Europe and Algeria.

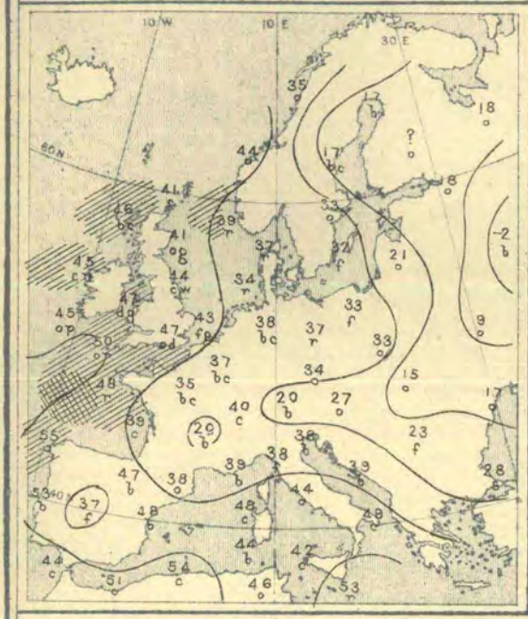
Wind fresh to strong from the Southward or South-Westward over the greater part of western and north-western Europe, with a gale over the Gulf of Finland. Light from the Northward over the south of Russia, as well as over the central and southern parts of Spain and some parts of Italy. Variable in the south of France, light from the Southward in Algeria. Subsequently veering a little in many parts of the United Kingdom and falling light on our northern coasts. Increasing to a gale from the South-Eastward in the south of Norway.

Barometer highest, 30·7 ins. and upwards over central Russia, 30·3 ins. to 30·45 ins. in a large anticyclone covering the Mediterranean, the whole of southern and the greater part of central Europe, and all but the most northern parts of Russia. Lowest, 29·4 ins. and less over the north of Scandinavia, and also in a depression lying off the north-west of Scotland. Depression subsequently moving north-eastwards, and barometer rising over nearly the whole of the United Kingdom. No important change occurring on Continent.

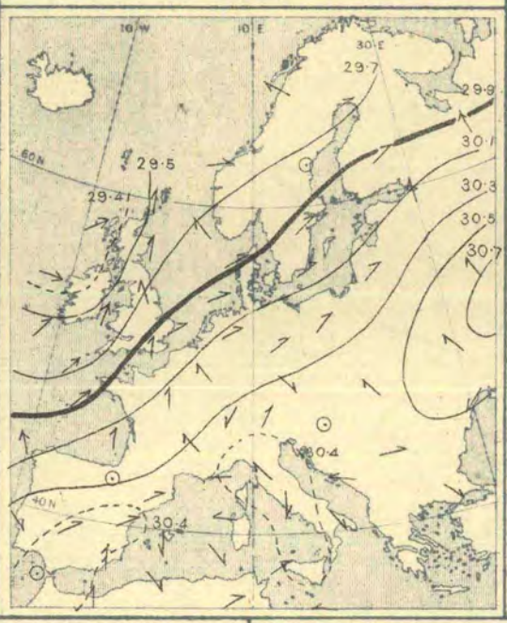
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons.

Thursday, 29th January.

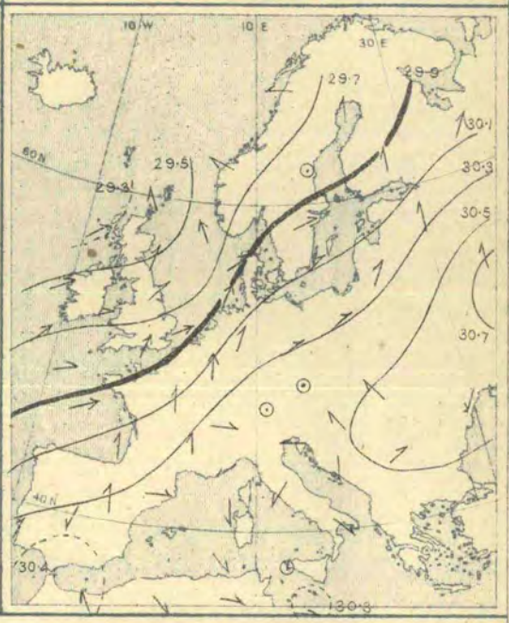
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather cloudy over the greater part of the United Kingdom, with rain at many of the English stations and passing showers in Ireland. Dull over Norway, Denmark, Russia, and many parts of central Europe, with rain in some places and fog over the Baltic. Fine over the greater part of France and southern Europe. Rain falling during day over nearly the whole of western Europe; amounts large at some of our southern stations, and also in the north-west of France. Snow reported in many parts of Finland.

Temperature highest, (1) 57° at Bilbao, 55° at Corunna, and 53° at Oporto; (°) 54° at Algiers, 53° at Malta, and 51° at Oran; (3) 50° at Scilly and 49° at Mullaghmore; above 45° in the western and southern parts of the United Kingdom generally. Lowest, −2° Fahr. at Moscow, +1° at Kharkov, 9° at Kiev, 15° at Lemberg, and 16° at Nicolaieff; below 20° at most of the Russian and Swedish stations, and below the freezing point over Austria, south Germany, and central France. Rising during day to between 45° and 51° in nearly all parts of the United Kingdom and France; exceeding 60° at some of the Algerian stations.

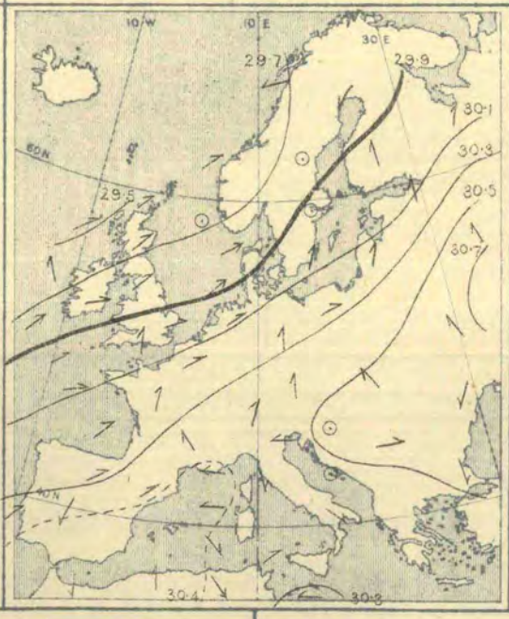
Wind Southerly over our Islands and France; strong in force on our western and southern coasts, with a gale at Mullaghmore. Light from the South-Westward over Scandinavia, Denmark, Finland, and the Baltic, but South-Easterly or Easterly over the central and southern parts of Russia. Variable over southern Europe and the Mediterranean. Subsequently veering to the South-Westward over our Islands and increasing to a gale at some of the Channel stations; blowing strongly from the Southward over the Gulf of Finland.

Barometer highest, 30·7 ins. and upwards over central Russia, 30·3 ins. to 30·4 ins. and more in a large anticyclone extending thence over the whole of eastern and southern Europe and the Mediterranean. Lowest, 29·4 ins. and less in a depression lying off the north-west of our Islands. Gradients moderate over north-western Europe, slight elsewhere. Depression in north-west subsequently travelling north-eastwards, but secondary disturbance passing across the south of England.

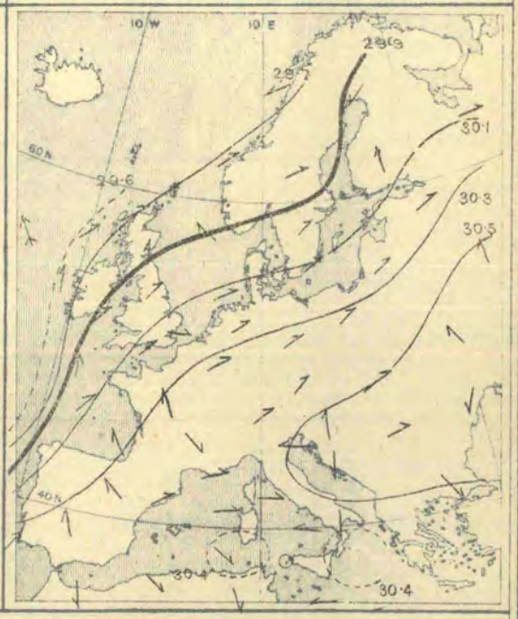
Friday, 30th January.

Temperature and Weather. — 8 a.m.

Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fair over the greater part of our Islands and the Continent, dull in Scandinavia, Denmark, and northern Russia, as well as in the north of France. Fog reported in Sweden and north Germany, rain in the south of Norway and some parts of France, and snow at St. Petersburg. Rain setting in at night over the greater part of the United Kingdom and thunder and lightning occurring at Scilly. Snow falling at some of the German stations.

Temperature highest, 56° at Oporto, 55° at Lisbon, 54° at Oran and Malta, and 53° at Bilbao; above 45° at most of the Mediterranean stations, and also in the extreme south-west of our Islands. Lowest, −7° at Kharkov, −6° at Moscow, −4° at Kiev, +1° at Nicolaieff, and 5° at Moscow and Hermanstadt; below the freezing point at several of the German and Austrian stations, and below 40° over central Algeria. Daily maxima reaching 50° in many parts of the United Kingdom, and as high as 53° at Scilly, Jersey, and in London. Exceeding 55° in Algeria and some parts of southern Europe.

Wind light or moderate from the South-Westward over the greater part of western and northern Europe, but Easterly in the west of Norway, Southerly or South-Easterly in Germany; light and variable over Algeria, Italy, and the southern parts of France and Russia. Subsequently backing to the Southward in the western and northern parts of the United Kingdom, and increasing to a gale in Ireland. No important change occurring elsewhere.

Barometer highest, 30·7 ins. and upwards over central Russia, 30·3 ins. and upwards in a large anticyclone extending thence over Austria, the whole of southern Europe, and the Mediterranean. Lowest, 29·5 ins. and less in a depression lying to the north-westward of Scotland. Depression subsequently travelling away in a north-north-easterly direction, new and much deeper disturbance appearing off our western coasts in evening.

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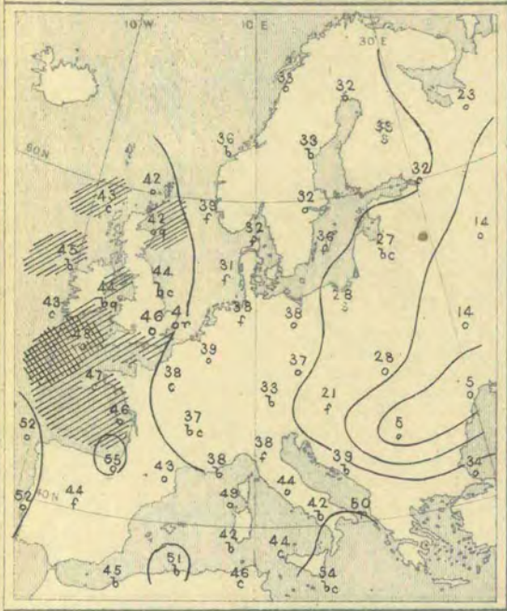
II.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 31st January.

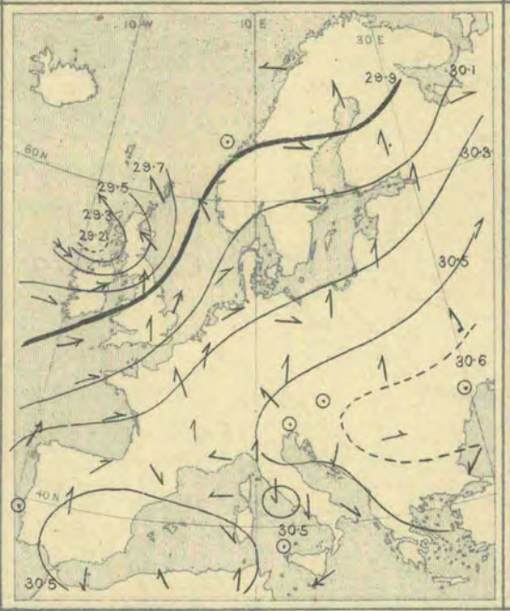
Temperature and Weather.

8 a.m.

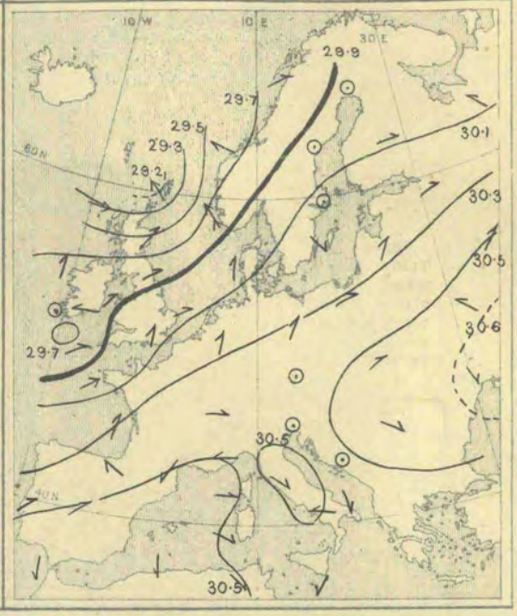


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine in many parts of England, Ireland, and France, as well as in Italy and Algeria. Dull elsewhere, foggy over north Germany, Denmark, the Baltic, and the south of Norway, squalls of rain in the north-west of our Islands, and snow in Finland. Rain falling in Scotland during day and over England and France at night, but weather remaining fair over the greater part of Ireland.

Temperature highest, 55° at Biarritz, 54° at Lisbon and Malta, 52° at Corunna and Tunis, and 51° at Algiers; above 45° at some of our own southern stations. Lowest, −13° Fahr. at Kharkov, +5° at Odessa and Hermanstadt, 8° at Nicolaieff, and 11° at Cracow; below the freezing point over Denmark and the east of France. Rising during day to between 45° and 50° in most parts of England and Ireland, to 55° or more in the west and south of France, and to 60° or more in Algeria and the south of Spain.

Wind Westerly in Ireland, with a gale in the north; strong from the South-Westward or Southward over England and from the South-Eastward in Scotland and west of Norway. Light from the Southward at a large majority of the Continental stations, but Northerly over the southern parts of Italy and the Adriatic and variable in the south of Russia. Subsequently increasing to a strong gale from the Southward in the east of Scotland, but veering to the Westward and moderating at night.

Barometer highest, 30·7 ins. and upwards over the south of Russia; 30·3 ins. and upwards over nearly the remainder of Russia, central and southern Europe, and the Mediterranean. Lowest, 29·2 ins. and less in a deep depression lying over the north-west of our Islands—depression subsequently travelling north-eastwards, but well-marked secondary disturbance appearing over our south-west coasts in evening.

GENERAL NOTES.

During the whole of the past week a large anticyclone has existed over all the more southern and eastern parts of Europe, its central portion being located over Russia, where the barometer has varied between 30·5 ins. and 30·7 ins. The winds in the southern and eastern countries have therefore been light and variable, and the weather fair and cold, the temperature in the central parts of the anticyclone being many degrees below zero. Over northern and north-western Europe, however, the conditions have been influenced by some large depressions which have travelled in a north-easterly direction past our own north-western and northern coasts to Scandinavia. The prevailing winds in these regions have therefore been South-Westerly and the weather mild, damp, and unsettled, with frequent falls of rain in the west and north of our Islands. Between the 30th and 31st a deep depression moved north-north-eastwards directly over Ireland and Scotland, and in the rear of this system a hard Westerly gale was experienced over the Irish Sea and the north of Ireland.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 20.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	10·7	?	19	?	EASTBOURNE	21·8	?	35	?
OSWALDKIRK	13·3	?	23	?	TORQUAY	22·2	?	35	?
WORKSOP	17·7	+ 7·7	30	+14	ARLEY (County Cavan)	26·3	?	45	?
THURCASTON	22·6	+13·4	38	+23					

REPORTS received too late for insertion in their proper places.

DATE OF REPORT.	NAMES OF STATIONS.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each Day.	Of Lowest each Day.	For whole of each Day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-Degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
December 20th, 1890	York	–	–	–	–	–	–	–	–	–	–	–	0·0	–	0	–
January 3rd, 1891	Glencarron	42	25	36·8	30·4	33·7	−3·5	0	58	3	0·21	−2·04	*	*	*	*
„ 10th „	Glencarron	43	21	36·8	26·8	32·0	−5·4	0	70	3	0·22	−2·05	*	*	*	*
„ „ „	Churchstoke	42	13	35·6	22·3	29·2	−9·0	0	90	2	0·17	−0·51	11·4	+1·6	22	+5
„ „ „	Stowell	–	–	–	–	–	–	–	–	–	–	–	15·8	?	28	?
„ „ „	Arley (County Cavan)	–	–	–	–	–	–	–	–	–	–	–	18·9	?	36	?
„ 17th „	Hereford	46	12	39·0	23·9	31·8	−7·1	0	71	2	0·05	−0·52	–	–	–	–
„ „ „	Llandudno	47	26	43·1	34·5	39·0	−2·3	3	28	1	0·04	−0·61	?	?	?	?
„ 24th „	Edinburgh	–	–	–	–	–	–	–	–	–	–	–	9·5	–	18	–

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, AND 21, DREWY STREET, GLASGOW; AND HODGES, FIGGIS, & CO., 104, GRAFTON STREET, DUBLIN.

VOL. VIII. No. 5]. *Third Series.* WEEK ENDING SATURDAY, 7TH FEBRUARY, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10*s.* 0*d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 26.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	55	31	47·9	38·8	43·4	5 above.	23	+16	9	−25	40	+ 5	170	+ 9
	1. SCOTLAND, EAST	54	30	48·6	37·7	43·2	6 above.	26	+17	12	−25	38	− 4	204	+ 12
	2. ENGLAND, N.E.	54	32	47·6	37·4	42·6	4 above.	24	+16	13	−21	46	+10	216	+ 37
	3. ENGLAND, EAST	50	28	46·2	34·2	40·2	2 above.	12	+ 3	30	− 8	37	− 3	296	+ 91
	4. MIDLAND COUNTIES	52	27	47·7	37·3	42·5	4 above.	23	+12	13	−24	51	+ 2	248	+ 46
	5. ENGLAND, SOUTH	51	27	46·8	35·7	41·2	1 above.	13	+ 1	25	− 3	35	−22	245	+ 92
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	51	29	47·7	40·3	43·9	5 above.	20	+10	5	−22	45	− 5	133	− 5
	7. ENGLAND, N.W.	51	29	48·6	39·2	43·0	4 above.	19	+11	8	−19	41*	− 4	170*	+ 26
	8. ENGLAND, S.W.	52	29	46·5	38·6	42·6	1 above.	18	+ 2	10	−11	49	−30	173	+ 68
	9. IRELAND, NORTH	53	25	48·8	40·4	44·6	4 above.	25	+11	4	−19	59	−11	134	+ 11
	10. IRELAND, SOUTH	55	25	49·7	39·7	44·7	2 above.	29	+ 8	6	−12	80	−25	125	+ 31
	— CHANNEL ISLANDS	50	34	47·5	40·7	44·1	0 (average)	20	− 2	4	− 4	73	−36	87	+ 41

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 26.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	20	8 more.	30	+ 4	7·0	+ 0·9	8	+11	14	+17	33	+ 2	13	+ 1
	1. SCOTLAND, EAST	2	3	2 less.	16	− 3	1·6	− 1·7	11	− 3	20	− 4	54	− 5	20	− 3
	2. ENGLAND, N.E.	1	less than ½.	4 less.	16	− 2	1·0	− 1·2	16	+ 3	25	+ 5	60	+19	21	+ 6
	3. ENGLAND, EAST	1	less than ½.	4 less.	20	+ 2	1·8	− 0·4	17	+ 4	27	+ 8	86	+27	29	+ 8
	4. MIDLAND COUNTIES	1	less than ½.	5 less.	15	− 3	1·9	− 0·9	15	+ 2	23	+ 4	83	+34	29	+12
	5. ENGLAND, SOUTH	1	less than ½.	6 less.	18	0	2·6	− 0·4	11	− 3	17	− 3	81	+32	27	+10
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	5	4	9 less.	23	0	4·4	− 2·2	6	− 6	10	− 8	58	+19	21	+ 7
	7. ENGLAND, N.W.	2	1	6 less.	15	− 6	2·1	− 1·5	5	− 7	9	−10	61	+20	22	+ 7
	8. ENGLAND, S.W.	2	2	7 less.	17	− 4	3·6	− 1·1	13	− 2	21	− 2	88	+30	29	+ 9
	9. IRELAND, NORTH	3	1	6 less.	22	− 1	2·0	− 1·8	8	− 6	13	− 7	71	+21	25	+ 7
	10. IRELAND, SOUTH	2	1	8 less.	19	− 3	2·5	− 2·2	10	− 6	16	− 7	87	+25	30	+ 8
	— CHANNEL ISLANDS	1	less than ½.	8 less.	18	− 5	2·3	− 1·6	14	− 5	21	− 8	111	+30	36	+10

General Remarks.

Weather during this week has been mild and the air damp. Much cloud has prevailed generally, a good deal of mist, and occasionally fog. Very little rain has fallen excepting in the extreme north of Scotland.

Temperature continued above the mean in all districts excepting the "Channel Islands," where it coincided with the normal. The excess ranged from 1° in "England S." and "S.W.," in "Scotland N." and "W.," and to 6° in "Scotland E." The highest of the maxima, which were recorded on rather irregular dates, varied from 55° in "Ireland S." and "Scotland N." to 50° in "England E." and the "Channel Islands." The lowest of the minima were recorded at most stations on the 2nd, and ranged from 25° in Ireland to 32° in "England N.E." and 34° in the "Channel Islands."

Rainfall has been considerably more than the mean in "Scotland N." but less in all other districts. Over the greater part of the Kingdom the fall has been extremely slight.

Bright Sunshine has been less prevalent than it was last week, and in most districts it has been less than the mean for the time of year. The percentage of the possible duration ranged from 27 in "England E." to 10 in "Scotland W." and 9 in "England N.W."

Barometer and Wind.—The distribution of pressure over our Islands has been anti-cyclonic, and no depressions have appeared immediately over us, although some few systems have skirted our extreme north-western and northern coasts on their way from the Atlantic to northern Europe. Light or moderate winds from the Westward and South-Westward prevailed in all districts during the greater part of the week, but towards its close those at our more southern stations became very light and variable.

* This value has been altered owing to the receipt of further information.

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213 370 2 | 91 1896

II.—DATA from which the SUMMARY on page 25 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ℌ	51	35	46·9	39·3	43·1	+ 4·1	19	8	6	0·02	−0·20	*	*	*	*
	Stornoway	52	34	48·9	38·6	43·8	+ 4·8	27	10	6	1·11	+0·08	21·5	+10·7	37	+17
	Wick	51	35	48·3	37·3	42·8	+ 4·3	25	13	6	1·04	+0·56	*	*	*	*
	Lairg ℌ	55	34	49·1	36·4	42·8	+ 6·3	29	16	6	1 42	+0·66	*	*	*	*
	Glencarron ℌ	48	33	46·5	? 39·3	? 42·9	?+ 5·5	? 18	? 8	7	4·40	+2·35	*	*	*	*
	Fort Augustus ℌ	51	31	47·7	39·6	43·7	+ 5·1	22	7	6	1·71	+0·71	1·5	?	3	?
	Fort William ℌ	50	35	47·6	41·4	44·5	+ 5·3	20	2	7	3·43	+1·27	1·6	?	3	?
1. SCOTLAND, E.	Nairn	54	32	45·4	33·1	43·8	+ 5·8	29	11	4	1·38	+0·96	*	*	*	*
	Aberdeen	53	30	49·1	37·3	43·2	+ 5·1	21	13	4	0·10	−0·43	12·3	− 2·6	21	− 4
	Braemar ℌ	48	36	46·6	37·6	42·1	+ 7·2	19	12	2	0·06	−0·71	18·8 †	? †	32†	?†
	Ochtertyre ℌ												*	*	*	*
	Leith	53	32	49·6	39·7	44·7	+ 4·9	29	6	1	0·07	−0·33	*	*	*	*
	Marchmont ℌ	51	31	48·3	35·6	42·0	+ 4·8	18	18	1	0·05	−0·54	8·8	?	15	?
2. ENGLAND, N.E.	Alnwick Castle	50	35	47·6	39·7	43·7	+ 5·7	22	6	2	0·04	−0·46	*	*	*	*
	Durham	54	33	49·1	36·6	42·9	+ 5·5	23	15	0	0·01 ‡	−0·41	12·7	− 0·1	21	+ 1
	Shields	52	33	48·6	37·0	42·8	+ 3·7	27	14	1	0·01	−0·38	*	*	*	*
	Scarborough ℌ	49	34	47·4	38·2	42·8	+ 3·8	22	11	1	0·01	−0·44	*	*	*	*
	York	53	32	48·4	36·1	42·3	+ 3·8	27	17	0	—	−0·42	15·2	+ 5·2	25	+10
	Spurn Head	47	34	41·7	37·0	40·9	+ 2·1	8	20	2	0·02	−0·32	*	*	*	*
3. ENGLAND, E.	Hillington ℌ	48	28	45·8	33·6	39·7	+ 1·9	11	32	0	0·03 ‡	−0·40	18·1	+ 4·9	29	+ 9
	Yarmouth	47	31	44·3	34·6	39·5	+ 1·4	6	28	2	0·03	−0·43	*	*	*	*
	Geldeston	49	30	47·7	34·1	40·9	+ 1·0	16	32	2	0·02	−0·36	19·0	+ 4·5	30	+ 6
	Cambridge	50	30	47·9	35·4	41·7	+ 3·2	17	28	0	—	−0·38	19·5	+ 5·5	30	+ 9
	Rothamsted	48	29	45·5	?33·3	? 39·4	?+ 1·5	? 10	? 33	0	0·01 ‡	−0·55	11·1	?	17	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	51	31	48·4	37·9	43·2	+ 4·7	26	11	0	—	−0·40	*	*	*	*
	Loughborough	52	31	48·6	39·3	44·0	+ 5·6	25	8	0	—	−0·45	*	*	*	*
	Stamford (Ketton Hall)	50	29	48·4	36·7	42·6	+ 4·1	26	15	1	0·01	?	*	*	*	*
	Cheadle ℌ	49	31	46·1	37·8	42·0	+ 4·8	11	12	2	0·04	−0·56	*	*	*	*
	Churchstoke ℌ	49	30	48·0	36·7	42·4	+ 3·7	25	15	1	0·01	−0·39	16·9	+ 3·9	27	+ 7
	Hereford ℌ	52	31	48·6	38·1	43·4	+ 3·7	26	11	0	—	−0·35	*	*	*	*
	Cirencester	50	27	46·6	34·9	40·8	+ 2·8	13	28	0	—	−0·67	15·6	+ 1·6	24	+ 3
	Oxford	49	32	48·7	37·0	41·9	+ 2·7	13	21	1	0·01	−0·48	11·3	− 1·7	18	− 1
5. ENGLAND, S.	London	50	30	48·0	35·4	41·7	+ 1·7	17	27	1	0·01	−0·45	6·4 †	− 0·7†	10†	− 1†
	Strathfield Turgiss ℌ	49	27	47·4	35 0	41·2	+ 2·2	15	28	1	0·02	−0·50	*	*	*	*
	Dungeness	47	28	45 3	34·3	39·8	− 0·1	9	29	1	0·01	−0·52	*	*	*	*
	Hastings (St. Leonards)	49	33	46·9	36·1	41·5	+ 1·4	14	24	2	0·03	−0·53	12·3	− 4·7	19	− 7
	Southampton	51	29	48·8	36·5	42·7	+ 2 3	28	15	1	0·03	−0·67	12·2	− 2·0	19	− 2
	Hurst Castle	51	31	46 4	35·7	41·1	+ 0·1	12	25	2	0·04	−0·58	*	*	*	*
	Stowell ℌ	47	30	44·6	36·6	40·5	+ 1·6	7	21	2	0·02	?	10·2 †	? †	16†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart)	?	35	?	41·2	?	?	?	?	7	1·21	−0·62	*	*	*	*
	Glasgow	50	34	47·5	40·7	44·1	+ 5·3	20	4	5	0·23	−0·67	4·8	− 4·2	8	− 6
	Ardrossan	50	35	47·4	40·9	44·2	+ 3·9	20	3	4	0·11	−0·77	*	*	*	*
	Glenlee ℌ	51	29	47·3	38·1	42·7	+ 4·9	21	11	6	0·16	−1·36	*	*	*	*
	Douglas (Isle of Man)	51	31	48·6	40·4	44·5	+ 3·9	24	4	4	0·14	−0·82	6·8	− 6·3	11	−11
7. ENGLAND, N.W.	Newton Reigny	50	29	47·3	36·5	41·9	+ 4·9	15	23	4	0·18	−0·62	7·7	− 4·4	13	− 6
	Stonyhurst	47	30	45·5	37·0	41·3	+ 2·7	10	20	3	0·20	−0·68	6·9	− 5·1	11	− 7
	Blackpool ℌ	46	36	43·9	39·4	41·7	+ 2·8	5	11	1	0·03	−0·62	1·7	−11·1	3	−15
	Manchester	49	32	46·6	38·1	42·4	+ 4·0	19	11	2	0·16	−0·44	*	*	*	*
	Liverpool Obsy. (Bidston)	51	37	47·7	40·0	43·9	+ 3·9	22	6	3	0 06	−0·40	*	*	*	*
	Llandudno ℌ	51	37	48·1	41·1	44·6	+ 3·1	22	3	2	0·12	−0·46	?	?	?	?
	Holyhead	50	40	47·4	42·4	44·9	+ 3·9	20	0	2	0·03	−0·66	*	*	*	*
8. ENGLAND, S.W.	Llandovery	49	29	47·0	35·4	41·2	+ 0·2	14	27	4	0·18	−0·92	*	*	*	*
	Pembroke	47	40	46·0	42·3	44·2	+ 1·7	15	0	5	0·11	−0·67	10·9	− 5·2	17	− 7
	Arlington (N. Devon)	46	33	44·1	37·3	40·7	+ 0·8	6	18	2	0·09	−0·92	*	*	*	*
	Cullompton ℌ	50	29	46·7	36·1	41·4	+ 1·2	13	24	2	0·80	+0·05	12·0	− 1·0	19	0
	Falmouth	49	39	46·6	41·4	44·0	+ 0·5	17	2	0	—	−1·14	15·7	− 0·2	24	0
	Plymouth	52	34	47·8	38·7	43·3	+ 0·8	23	9	1	0·01	−0·81	12·7	− 2·5	20	− 2
	Prawle Point	50	35	47·3	39·3	43·3	+ 1·1	20	8	0	—	−0·60	*	*	*	*
9. IRELAND, N.	Malin Head	50	38	48·0	43·0	45·5	+ 3·7	25	0	4	0·14	?	*	*	*	*
	Londonderry	53	33	49·4	41·6	45·5	+ 3·5	26	1	3	0·11	−0·71	*	*	*	*
	Mullaghmore	52	37	49·7	43·7	46 7	+ 4·3	33	0	5	0·28	−0·43	*	*	*	*
	Belmullet	51	34	49·7	43·3	46·5	+ 4·1	32	0	5	0·27	?	*	*	*	*
	Markree Castle	52	25	48 9	38·5	43·7	+ 3·5	27	10	4	0·16	−0·58	9·0	− 4·0	15	− 5
	Brookeborough	51	25	47·2	37·6	42·4	+ 3·2	21	12	1	0·10	−0·78	*	*	*	*
	Armagh	52	30	48·4	39·6	44·0	+ 4·2	24	7	3	0·07	−0·55	7·0	− 6·2	11	− 9
	Donaghadee	53	31	49·0	38·0	44·0	+ 3·4	31	11	1	0·03	−0·59	*	*	*	*
	Edgeworthstown	52	27	48·1	37·9	43·0	+ 3·8	24	11	4	0·05	−0·64	*	*	*	*
10. IRELAND, S.	Dublin	55	33	50·9	41·5	46·2	+ 4 1	32	1	0	—	−0·52	11·9	− 3·0	19	− 5
	Parsonstown	53	29	50·1	35·7	42·9	+ 2·4	33	18	1	0·09	−0·52	9·1	− 5·1	14	− 9
	Kilkenny	52	25	48·9	35·6	42·3	+ 0·3	29	18	1	0·05	−0·63	*	*	*	*
	Waterford	49	27	47·7	37·8	42·8	− 0·4	23	12	3	0·10	−0·87	*	*	*	*
	Roche's Point	50	40	48·7	43·1	45·9	+ 2·1	27	0	1	0·01	−1·17	*	*	*	*
	Valencia	51	40	50·0	43·7	46·9	+ 1·7	34	0	4	0·35	−1·00	9·6	− 6·3	15	−10
	Killarney	53	31	50·2	40·9	45·6	+ 1·6	30	3	3	0·10	?	*	*	*	*
	Foynes	55	31	50·7	39·0	44·9	+ 1·9	33	8	2	0·03	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	50	40	47·7	42·4	45 1	− 0·8	22	0	0	—	−0·86	*	*	*	*
	Jersey	50	34	47·3	38·9	43·1	+ 0·6	21	9	1	0·01	−0·64	13·6	− 5·6	21	− 8

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked ℑ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

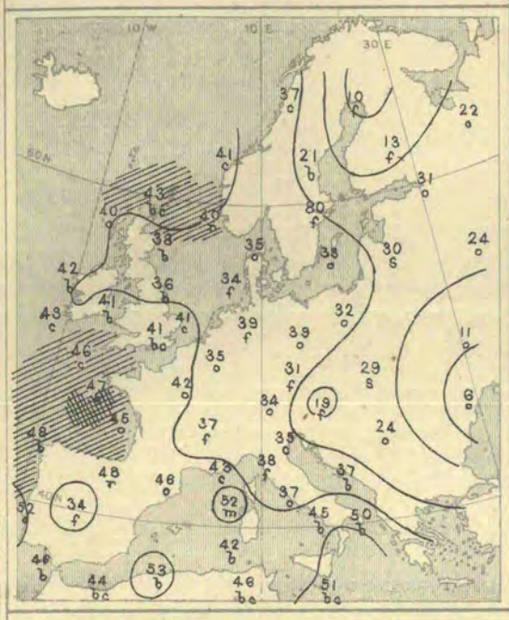
† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page. ‡ Rime or mist.

III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 1st February.

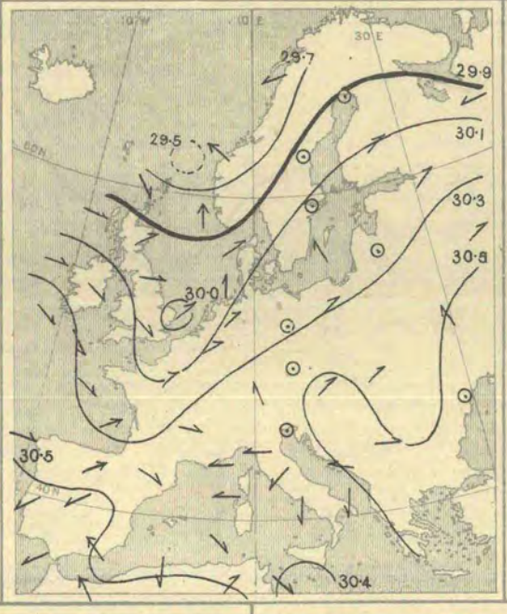
Temperature and Weather.

8 a.m.

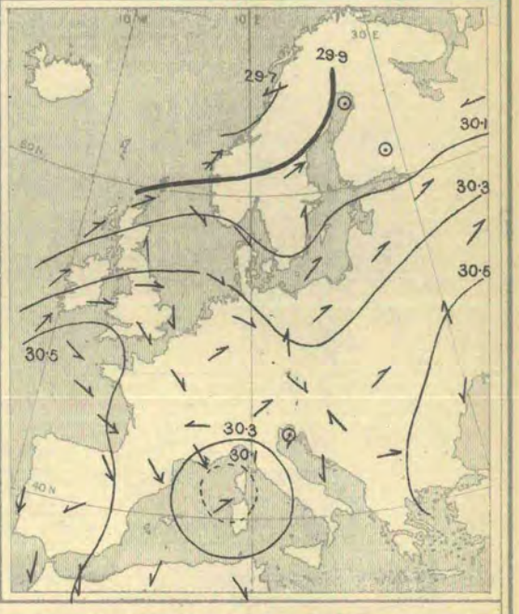


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine over the greater part of the United Kingdom, Italy, Algeria, and the south of Spain. Cloudy or overcast elsewhere, with fog in many parts of Finland, Sweden, and Denmark, as well as at some of the Austrian stations and Madrid; rain in the south of Norway and snow at Riga and Lemberg. Rain setting in later in the extreme west and north of our Islands and at some of the French stations—heavily on the northern shores of the Mediterranean. [Italian reports wanting.]

Temperature highest, 53° at Algiers, 52° at Sanguinaire and Lisbon, 51° at Malta, 50° at Brindisi, and 49° at Barcelona; above 45° in the west of France and at Scilly. Lowest, −16° at Kharkov, +6° at Odessa, 10° at Haparanda and Nicolaieff, 11° at Kiev, and 13° at Kuopio; below the freezing point in nearly all parts of Sweden, Russia, and Austria, and very little above it over central Ireland, the north of England, and central Spain. Rising during day to between 45° and 50° in most parts of the United Kingdom, and to upwards of 50° in the south of France, and to 68° at San Fernando, but sharp ground frost occurring over England at night.

Wind light from the Westward over Ireland and Scotland and from the North-Westward or Northward over the greater part of England; Southerly over Denmark, Holland, Germany, and the south of Norway, and South-Easterly or Easterly in the west of Norway. Calm in Sweden, light and variable elsewhere. Subsequently backing to the South-Westward or Southward in the extreme west of our Islands and increasing in force; becoming strong from North-West over the south of France, but South-Westerly at Sanguinaire.

Barometer, 30·7 ins. and upwards to 30·5 ins. over the south of Russia, 30·6 ins. and upwards to 30·4 ins. over central Spain, 30·3 ins. and upwards in the south of Ireland; high over the southern half of Europe generally. Lowest, 29·6 ins. and less in a depression lying off the west of Norway, 30·0 ins. and less in a shallow secondary system over the east of England. Both disturbances travelling away north-eastwards later and filling up; new depression beginning to approach our extreme north-west coasts.

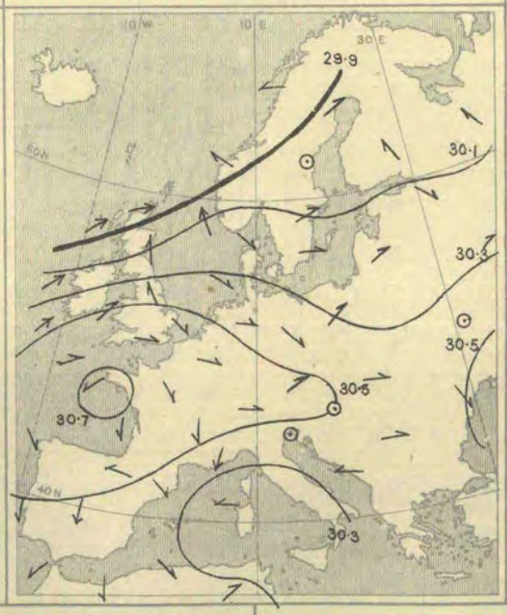
Monday, 2nd February.

Temperature and Weather.

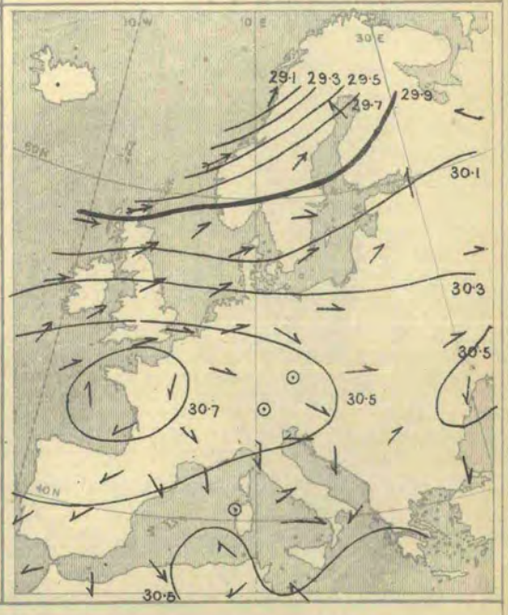
8 a.m.

Barometer and Wind.

8 a.m.



6 p.m.



Weather fine and bright over the Spanish Peninsula, the west of France, and some parts of Algeria, as well as over the eastern, inland, and southern counties of England, and the eastern shores of the North Sea; cloudy or overcast elsewhere, with fog over many parts of central Europe, snow at Memel, rain at Prague. Unsettled looking in the north-western parts of the British Islands. Heavy rain setting in later over the northern parts of Scotland and in Norway, very slight showers at some stations in Ireland and England, and some rain in Algeria.

Temperature risen over Ireland and Scotland, fallen generally elsewhere. Morning readings exceeding 50° at Algiers and Stornoway only, just touching 50° at Oporto, Valencia Island, and Nairn; below 40° over our midland and south-eastern counties, the greater part of France, Germany, and Denmark, below 30° over northern and western Russia, and as low as −12° at Kharkov, +7° at Nicolaieff, 12° at Kiev, and 18° at Vienna. Subsequently rising to 50° or more in many parts of the United Kingdom and reaching 54° at Nairn and Prawle Point, and a rather higher value in some parts of Italy and the south of France.

Wind (1) South-Westerly in our Islands, light in force over England, but fresh or strong on our extreme western and northern coasts: South-Easterly or Easterly in the west of Norway, Westerly or North-Westerly in Denmark and Germany, light from the South-Westward over the Baltic Provinces and Gulf of Finland; (2) Northerly or North-Easterly in France and Spain, calm in Austria, variable in Algeria. Subsequently increasing to a fresh gale from the South-Westward in the Hebrides, Shetlands, and west of Norway.

Barometer, 30·7 ins. and upwards in the north-west of France, 30·6 ins. and upwards in the south of Russia, to 30·4 ins. in a large anticyclone covering the western half of the Continent. Lowest, 29·9 ins. and less in a very large depression lying to the northward of our Islands, and also in a small system lying over Finland, and 30·3 ins. and less over the eastern half of the Mediterranean. Depression in far north subsequently moving eastwards towards Scandinavia, that in the extreme south-east becoming ill defined.

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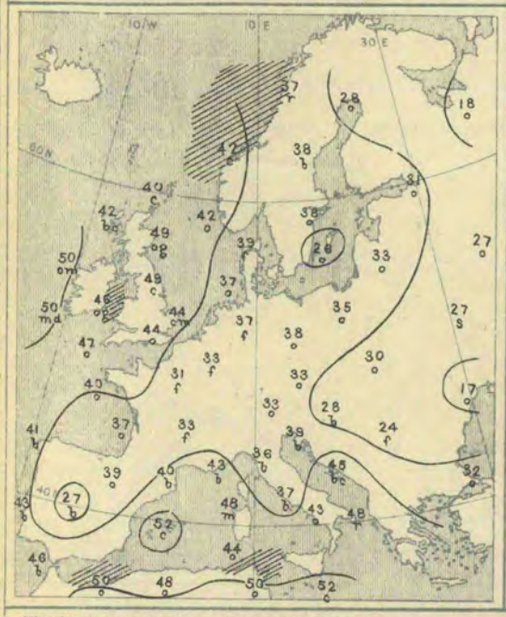
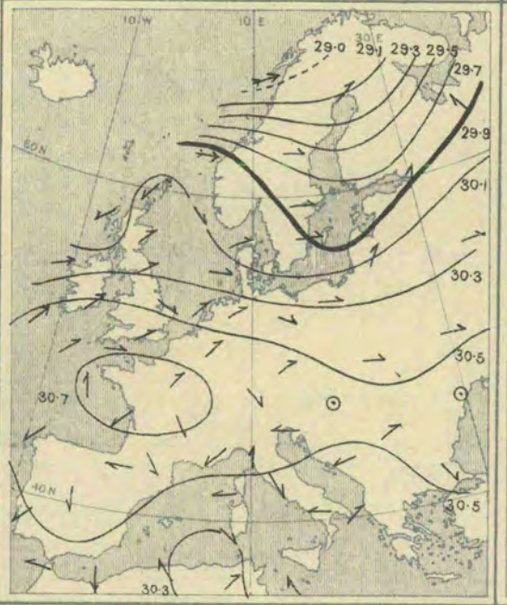
II.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 3rd February.

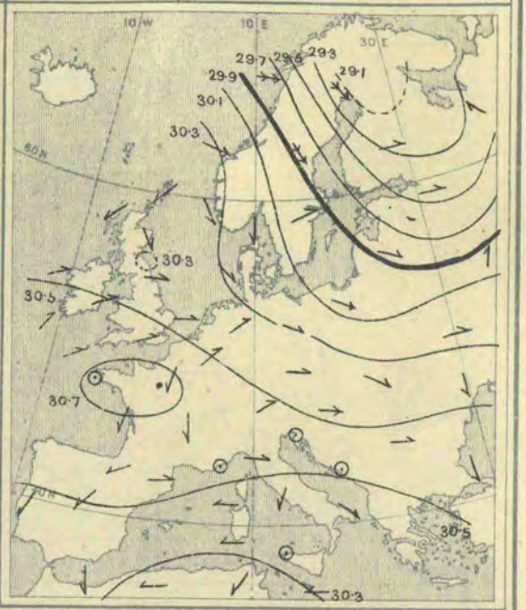
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over southern and south-western Europe, cloudy or overcast elsewhere; foggy in many parts of France, western and northern Germany; still rainy in the north-west and north of our Islands and in Norway. Some rain at all our western and northern stations during the day, as well as over the Netherlands, north Germany, Russia, and Italy; large falls over Algeria; weather dull but fair over England.

Temperature risen over England and the North Sea, as well as over southern Russia, fallen over England, France, and western Germany. Morning readings, 50° or more in the west of Ireland, at Oporto, and several Mediterranean stations; exceeding 40° over the British Islands generally and in the west of Norway, much lower elsewhere. Lowest, (1) 4° Fahr. at Nicolaieff, 16° at Kharkov, 17° at Odessa; (2) 18° at Archangel, 27° at Moscow, 28° at Haparanda; (3) 26° at Turin, 31° at Paris and Wiesbaden. Rising during day to between 55° and 60° over the southern parts of France and Italy, to between 50° and 53° in many parts of Ireland and Scotland, and to between 45° and 50° over England.

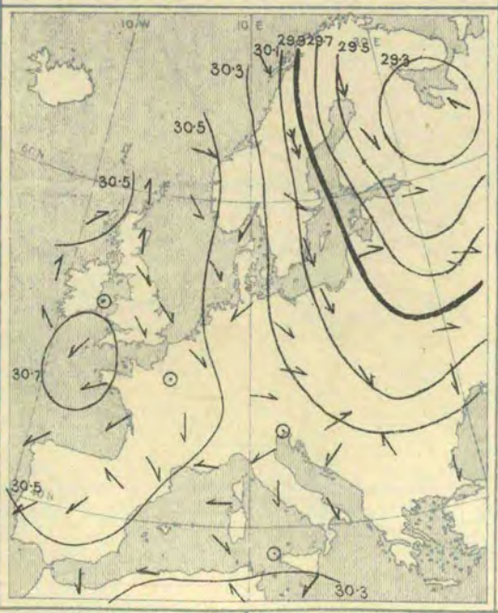
Wind Westerly to South-Westerly over the British Islands and the northern half of Continental Europe; blowing a gale in Norway and a fresh breeze over the western parts of our Islands; Easterly to Northerly, light to moderate, on the northern shores of the Mediterranean, very light from the Westward over Germany and southern Russia, very light and variable over central France. Shifting to the Northward in Scotland later, and blowing hard from West in Norway and from North-West over the Gulf of Bothnia; freshening from West over the Baltic Provinces and western Russia.

Barometer highest, 30·7 ins. and more to 30·5 ins. in an anticyclone covering the greater part of western Europe, Austria, and south Germany, and exceeding 30·4 ins. in a "col" extending from Hungary to the Black Sea and southern Russia. Lowest, 29·0 ins. and less in a deep depression over Lapland, 30·1 ins. and less in a shallow secondary over the west of Scotland, and 30·3 ins. and less over the eastern parts of Algeria. Scotch depression filling up later and barometer rising quickly on all our northern coasts. Depression over Lapland moving east and spreading southwards over Finland.

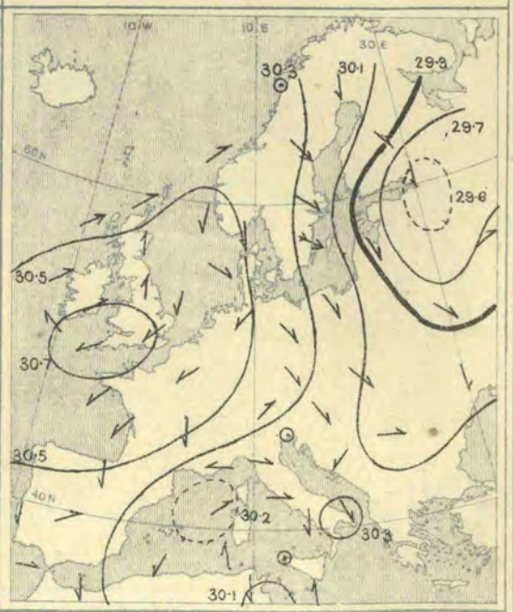
Wednesday, 4th February.

Temperature and Weather. 8 a.m.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fair generally over southern, western, and north-western Europe, and at many stations fine and bright; dull over Russia, central and south-eastern Europe, with snow at Kiev and Warsaw. Fog or haze prevalent in several parts of our Islands and the north of France. Some rain later in the extreme north and north-west of our Islands and rain or snow at a few south German, Austrian, and Russian stations; heavy falls of rain in several parts of Algeria.

Temperature fallen a little in our Islands, risen over France, south Germany, and Russia. Morning readings exceeding 50° on the southern shores of the Mediterranean only, but exceeding 40° over the United Kingdom and on the Portuguese coast; lower elsewhere. Lowest, 22° at Hermanstadt, 23° at Kharkov and Archangel, 26° at Nicolaieff, and below 32° at most of the Russian stations. Rising later to 51° or more in the south of France and over Italy, as well as at some of our own stations, but not much exceeding 40° over the greater part of Germany.

Wind moderate Southerly in the extreme west and north-west of our Islands, very light and variable over the British Islands as a whole; Northerly to North-Easterly, light, over France and Spain; Northerly to North-Westerly, strong, over Sweden and the Baltic (a gale at Hernösand and Hangö); North-Westerly to Westerly over Germany, Austria-Hungary, and Poland; Westerly to South-Westerly, very light, over the southern half of Russia. No change of importance later.

Barometer highest, 30·7 ins. and more to 30·5 ins. in an anticyclone lying over western Europe, and exceeding 30·4 ins. over south Germany, the Adriatic, and south-eastern Europe. Lowest, 29·4 ins. and less in a well-marked depression over northern Russia. Gradients slight in the west, steep over Finland, the Baltic, and Sweden, moderate over Germany and western Russia. Falling over the Mediterranean, where a series of complex but not deep depressions appeared.

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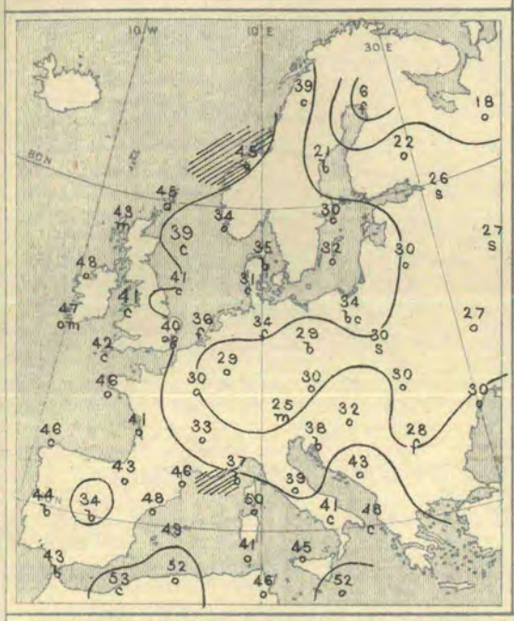
II.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 5th February.

Temperature and Weather.

8 a.m.

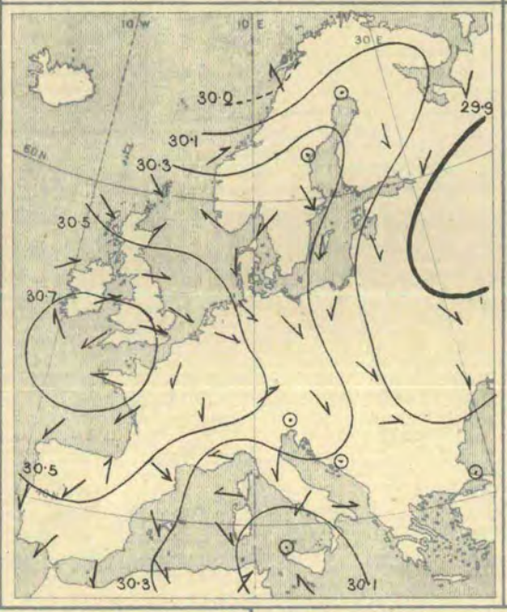


Weather fine and bright over the southern parts of France and Spain and in western Algeria, as well as at several stations in the British Islands, north Germany, and Austria; cloudy or overcast elsewhere; foggy or hazy at some stations, chiefly over the east and south-east of England. Snow falling in many parts of Russia. Some showers later in Norway, Scotland, and the north of Ireland, and a great deal over Algeria and at Palermo, little or none elsewhere.

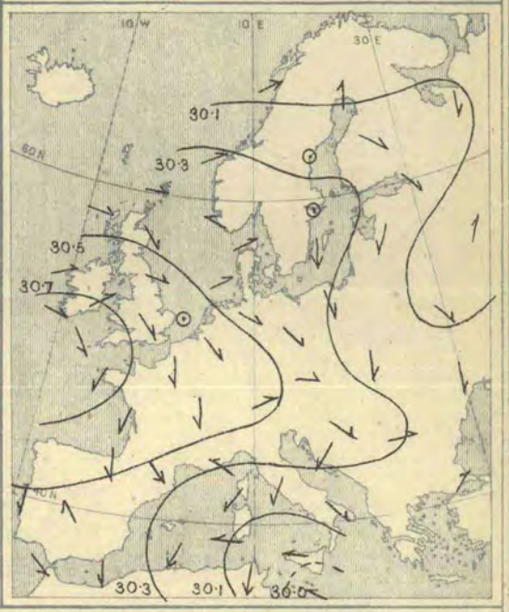
Temperature fallen in many parts of our Islands, the north of France, Germany, the Baltic, and Prussia; risen a little on the northern shores of the Mediterranean. Highest, 53° at Oran, 52° at Algiers and Malta, between 40° and 50° over south-western Europe, and on the south-western, western, and northern coasts of the British Isles, lower elsewhere. Lowest, (1) 6° at Haparanda, 13° at Uleaborg, 18° at Archangel, 26° at St. Petersburg, 27° at Moscow and Kiev; (2) 25° at Munich, 29° at Münster and Berlin, 30° at Turin and Paris; (3) 30° at Parsonstown. Touching 50° at some of our western and northern stations later, and 50° to 59° in several parts of France and Italy; still higher over Algeria.

Barometer and Wind.

8 a.m.



6 p.m.



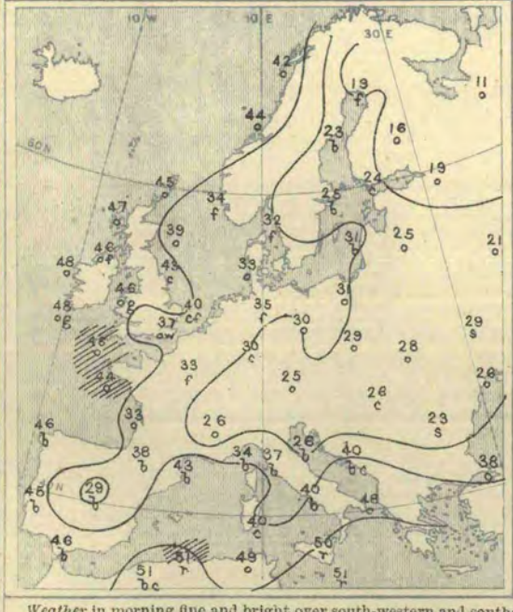
Wind very light and variable over Ireland, England, and the Bay of Biscay; anticyclonic, Northerly to North-Easterly, over France and Spain; cyclonic, Westerly to South-Westerly, in Scotland, South-Westerly to Southerly in Norway. Cyclonic Northerly wind prevalent over the Baltic and north Germany (strong in places), North-Westerly in Austria-Hungary; very variable breezes elsewhere, both in force and direction, especially over the Mediterranean. No great change reported later.

Barometer highest, 30·7 ins. and more to 30·5 ins. in a large anticyclone covering the British Islands, the Netherlands, France, and the Bay of Biscay, and ranging between 30·4 ins. and 30·1 ins. in a "col" extending thence across Germany and south-eastern Europe to Asia Minor. Lowest, 29·9 ins. and less in a depression over central Russia, 30·0 ins. and less in another approaching Lapland from the Atlantic, and 30·2 ins. to 30·0 ins. in another of irregular form lying over the eastern parts of the Mediterranean. Russian depression beginning to fill up later.

Friday, 6th February.

Temperature and Weather.

8 a.m.

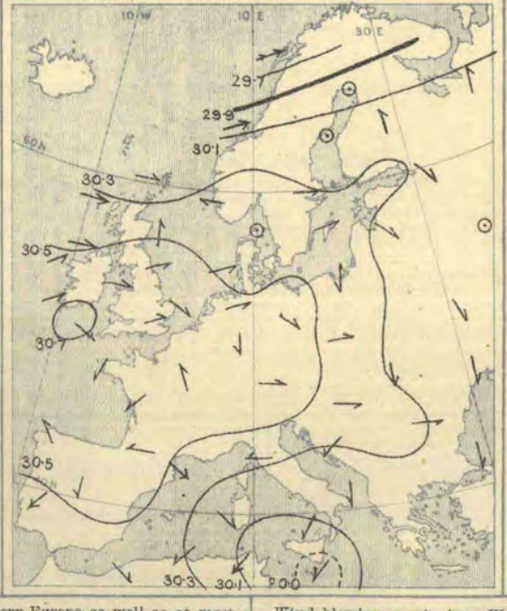


Weather in morning fine and bright over south-western and southern Europe, as well as at most of the Swedish stations; dull elsewhere, with fog in many parts of England, France, north Germany, the Sound, and the eastern parts of the North Sea; snow at Kiev. Wet fog or haze remaining very prevalent over the districts named during the day; slight rain falling in the Netherlands and a considerable quantity in Algeria and at Palermo.

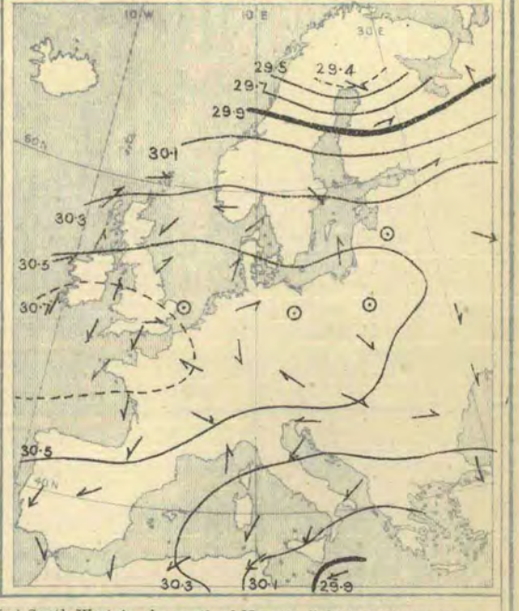
Temperature falling a little in the south of France and some parts of England, not changing much elsewhere. Morning readings exceeding 50° at Malta, Palermo, Algiers, and Oran; exceeding 40° on the Mediterranean coasts generally and over the greater part of the British Islands and Norway; much lower elsewhere. Lowest, 11° at Archangel, 19° at Haparanda and St. Petersburg, 20° at Nicolaieff, 21° at Kharkov and Moscow, and below 30° over Austria, Poland, south Germany, and the inland parts of the south of France, as well as at Pesaro. Rising to a little above 50° in Scotland and some parts of Ireland later, and to a still higher value over Algeria and the southern parts of Italy and Spain.

Barometer and Wind.

8 a.m.



6 p.m.



Wind blowing a gale from West-South-West in the north of Norway, light to moderate breeze from the Westward over the British Islands and North Sea, calms prevalent in Sweden; North-Westerly over Germany and Austria, Northerly to North-Easterly over the eastern parts of the Mediterranean and blowing strongly in places; light and very variable elsewhere. Backing to South-West and freshening a little on our north-western coasts later, and South-Westerly wind spreading to Sweden and Finland; no other change of importance.

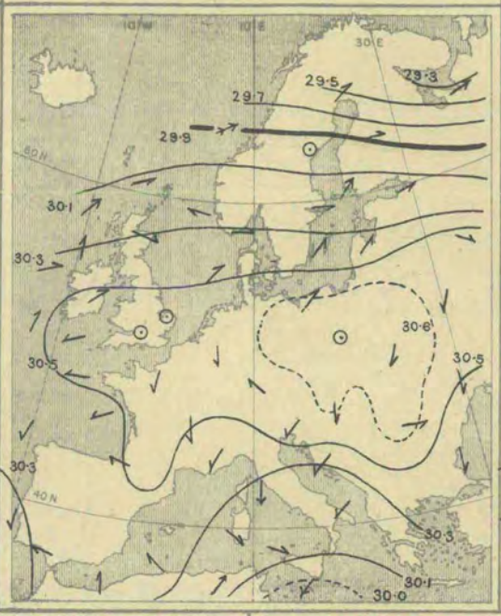
Barometer highest, 30·7 ins. to 30·4 ins. in a large anticyclone covering nearly the whole of western and central Europe—the centre of the system being near Roche's Point. Lowest, 29·7 ins. and less over Finmark, 30·2 ins. to 29·9 ins. in a depression over the Mediterranean. Gradients moderate both in the extreme north and extreme south, slight elsewhere.

Judd & Cº Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

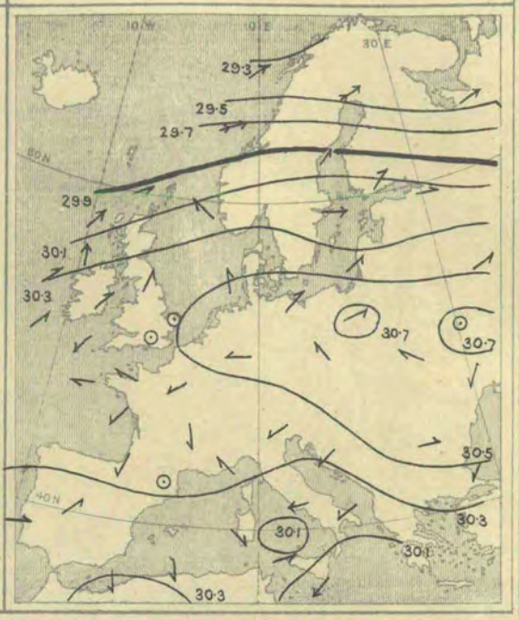
Saturday, 7th February.

Temperature and Weather. 8 a.m.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the most northern parts both of Europe and the British Islands, as well as over south Germany and some parts of the south of France and in the south of Spain; cloudy or overcast elsewhere, very gloomy over England, and foggy on our eastern coasts and in Holland. Snow falling at Berlin. Rain in small quantities later over the western and northern parts of the United Kingdom and at Palermo, larger quantities in parts of Algeria; much fog and gloom over east of England, especially in London, where the daytime was completely dark.

Temperature changing little and irregularly; falling decidedly over south Germany. Morning reading exceeding 50° at Malta only; exceeding 40° at most of the other Mediterranean stations (except in the south of France and north of Italy), as well as in the British Islands and west of Norway; much lower elsewhere. Lowest, 0° Fahr. at Hermaustadt, 10° at Warsaw, 12° at Munich, 21° at Cracow, 23° at Lemberg, and below the freezing point all over Russia, Austria, southern and eastern Germany, and the inland departments of the south of France. No important change elsewhere beyond ordinary diurnal range.

Wind South-Westerly to Westerly over northern and north-western Europe, light to strong in force; Northerly to North-Easterly over the Mediterranean and Adriatic, moderate in force. Very light and variable elsewhere, calm in many parts of England. South-Westerly wind increasing to a gale in the Hebrides and west of Norway later.

Barometer highest, 30·6 ins. and more over eastern Germany, Poland, and western Russia, and ranging between 30·6 ins. and 30·4 ins. in a very large system covering the whole of western, central, and eastern Europe. Lowest, about 29·3 ins. over Lapland and the north of Russia, and below 30·0 ins. over, and to the southward of, Malta. Falling slightly in our Islands and France during day, but relative distribution changing little.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During this week pressure has been continuously lowest over the northern, highest over the southern and central parts of the area embraced by our maps. At times the central portion of the high-pressure system has been situated immediately over France or the south of our Islands, at others there have been two distinct maxima—one over south-eastern, the other over south-western Europe and neighbouring parts of the Atlantic, the two centres being united by a "col" stretching from France across Germany and Austria to Russia. The principal depressions, which have appeared in the far north, have been large and somewhat deep, and after their passage eastwards over Lapland and northern Europe have moved south-eastwards towards eastern Russia, where they have filled up. The winds over the northern regions have been strong to a gale in force from between South-West and North-West, temperature has been high, and the weather showery. Over France and central Europe the conditions have been quiet and rather cold, while over the Mediterranean countries they have been less quiet and fair, considerable falls of rain occurring at times in France, Italy, and Algeria. At the close of the week the thermometer was beginning to fall decidedly over Austria and Germany, the thermometer having gone down to 0° Fahr. at 8 a.m. on Saturday.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 26.

Stations.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	Stations.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	5·8	?	10	?	EASTBOURNE	11·9	?	19	?
OSWALDKIRK	18·5	?	30	?	TORQUAY	15·1	?	23	?
WORKSOP	13·4	+1·7	21	+ 3	ARLEY (County Cavan)	7·9	?	13	?
THURCASTON	16·8	+5·9	27	+11					

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, AND 21, DREWY STREET, GLASGOW; AND HODGES, FIGGIS, & CO., 104, GRAFTON STREET, DUBLIN.

VOL. VIII. No. 6]. *Third Series.* WEEK ENDING SATURDAY, 14TH FEBRUARY, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 32.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	51	23	44·9	34·2	39·5	1 above.	8	+ 2	29	− 5	48	+ 8	199	0
	1. SCOTLAND, EAST	56	24	46·1	32·1	39·1	1 above.	11	+ 2	38	+ 2	49	+ 1	242	+ 11
	2. ENGLAND, N.E.	52	26	45·6	34·1	39·9	1 above.	10	+ 1	31	− 1	56	+14	247	+ 34
	3. ENGLAND, EAST	50	28	43·3	32·9	38·4	0 (average)	5	− 5	33	− 2	42	− 4	329	+ 87
	4. MIDLAND COUNTIES	50	27	45·7	34·8	40·3	1 above.	10	− 2	28	− 6	61	+ 4	276	+ 29
	5. ENGLAND, SOUTH	51	24	43·9	32·3	38·1	2 below.	5	− 9	35	+ 9	40	−28	280	+100
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	54	19	45·9	34·8	40·4	1 above.	11	+ 2	28	+ 2	56	− 2	161	− 6
	7. ENGLAND, N.W.	52	23	45·3	36·1	40·8	1 above.	9	0	24	− 2	50	− 2	194	+ 22
	8. ENGLAND, S.W.	52	23	46·3	34·3	40·3	2 below.	12	− 5	30	+10	61	−33	203	+ 77
	9. IRELAND, NORTH	53	20	47·2	35·4	41·4	0 (average)	15	+ 1	27	+ 4	74	− 6	161	+ 12
	10. IRELAND, SOUTH	57	24	49·2	36·8	43·0	0 (average)	29	+ 8	15	− 2	109	−12	140	+ 27
	— CHANNEL ISLANDS	52	29	46·8	37·7	42·3	2 below.	20	− 2	12	+ 6	93	−35	99	+ 45

Rainfall.

	DISTRICTS. (See p. 32.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	17	7 more.	36	+ 5	8·7	+ 1·5
	1. SCOTLAND, EAST	3	2	4 less.	19	− 4	1·8	− 2·1
	2. ENGLAND, N.E.	2	less than ½.	4 less.	18	− 3	1·0	− 1·6
	3. ENGLAND, EAST	1	less than ½.	4 less.	21	− 1	1·8	− 0·9
	4. MIDLAND COUNTIES	1	less than ½.	5 less.	16	− 6	1·9	− 1·4
	5. ENGLAND, SOUTH	1	less than ½.	5 less.	19	− 3	2·6	− 1·0
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	4	3	8 less.	27	− 1	4·7	− 3·0
	7. ENGLAND, N.W.	3	1	5 less.	18	− 7	2·2	− 2·0
	8. ENGLAND, S.W.	1	less than ½.	8 less.	18	− 8	3·6	− 1·9
	9. IRELAND, NORTH	2	1	6 less.	24	− 4	2·1	− 2·4
	10. IRELAND, SOUTH	2	1	8 less.	21	− 6	2·6	− 3·0
	— CHANNEL ISLANDS	2	less than ½.	7 less.	20	− 8	2·3	− 2·2

Bright Sunshine.

	DISTRICTS. (See p. 32.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	9	− 7	14	−13	42	0	13	0
	1. SCOTLAND, EAST	19	+ 6	31	+10	73	− 4	22	− 2
	2. ENGLAND, N.E.	15	+ 1	22	0	75	+20	22	+ 6
	3. ENGLAND, EAST	16	− 1	24	− 1	102	+25	28	+ 6
	4. MIDLAND COUNTIES	16	+ 2	23	+ 2	99	+34	28	+10
	5. ENGLAND, SOUTH	18	+ 4	27	+ 5	99	+36	27	+ 9
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	15	+ 1	23	+ 3	73	+17	21	+ 4
	7. ENGLAND, N.W.	13	− 1	20	− 1	76*	+18	22	+ 5
	8. ENGLAND, S.W.	27	+ 9	40	+13	115	+40	31	+10
	9. IRELAND, NORTH	17	+ 1	26	+ 4	88	+22	25	+ 6
	10. IRELAND, SOUTH	15	− 2	23	− 2	102	+21	29	+ 6
	— CHANNEL ISLANDS	33	+12	48	+16	144	+43	38	+11

General Remarks.

Weather has been fair and dry in nearly all parts of the Kingdom, with mild days and cold nights. Fog and mist were reported from time to time, but the intervening periods were generally clear and bright. In the extreme north of Scotland, however, the weather was dull, with frequent heavy falls of rain, and on Wednesday a large amount of snow was experienced.

Temperature has differed little from the mean, but has been rather above in the north and below in the south. The highest of the maxima were generally recorded either on the 11th or 12th, and varied from between 57° in "Ireland S." and 56° in "Scotland E." to 50° in "England E." and the "Midland Counties." The lowest of the minima were registered on irregular dates, and ranged from 19° in "Scotland W." (at Glenlee) and 20° in "Ireland N." (at Markree and Brookborough) to 28° in "England E." and 29° in the "Channel Islands."

Rainfall has largely exceeded the mean in "Scotland N.;" in the other Scotch districts the fall has been slight, while in Ireland and England it has been almost nil.

Bright Sunshine shows a considerable increase on that recorded last week and in most districts it has exceeded the normal. The percentage of the possible duration has varied from 48° in the "Channel Islands" and 40° in "England S.W." to 31° in "Scotland E.," 27° in "England S.," 20° in "England N.W.," and 14° in "Scotland N."

Barometer and Wind.—The distribution of pressure has continued anticyclonic and no depressions have appeared immediately over our Islands, but large disturbances and their secondaries have moved eastwards over the northern parts of our area, not affecting the weather much except in the extreme north of Scotland. Light airs from between North-West and North-East have generally prevailed over England, while in the west and north of the Kingdom the breezes have been moderate from between South and West. On the 10th, however, the wind in these latter regions increased considerably and gales were reported at some of the Scotch stations.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 31 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head S	47	25	43·0	33·7	38·4	− 0·4	3	30	7	0·96	+0·16	*	*	*	*
	Stornoway S	51	28	46·1	35·1	40·6	+ 1·6	11	27	7	1·33	+0·33	5·7	− 7·6	9	−13
	Wick S	51	23	44·1	31·0	37·6	− 0·4	6	40	4	1·38	+0·88	*	*	*	*
	Lairg S	49	25	45·2	33·1	39·2	+ 2·7	9	34	5	2·13	+1·37	*	*	*	*
	Glencarron S												*	*	*	*
	Fort Augustus S	50	30	45·1	34·3	39·7	+ 1·1	9	29	3	1·96	+1·00	9·6	?	15	?
	Fort William S	50	32	45·7	37·7	41·7	+ 2·5	10	18	7	2·61	+0·57	11·0	?	17	?
1. SCOTLAND, E.	Nairn S	53	28	47·4	33·4	40·4	+ 2·1	15	34	3	0·64	+0·25	*	*	*	*
	Aberdeen S	55	29	46·4	31·9	39·2	+ 0·7	12	33	3	0·16	−0·42	22·5	+ 6·3	36	+10
	Braemar S	49	24	42·1	31·2	36·7	+ 1·5	0	38	4	0·17	−0·58	21·8 †	? †	35†	? †
	Ochtertyre S	56	28	49·0	32·3	40·7	+ 3·4	20	39	3	0·17	−0·81	*	*	*	*
	Leith S	52	27	46·6	32·6	39·6	− 0·4	13	36	2	0·03	−0·35	*	*	*	*
	Marchmont S	50	28	44·9	31·3	38·1	+ 0·6	8	39	2	0·16	−0·43	19·0	?	30	?
2. ENGLAND, N.E.	Alnwick Castle	50	26	44·6	34·3	39·5	+ 1·2	7	29	1	0·06	−0·46	*	*	*	*
	Durham	52	26	46·3	32·6	39·7	+ 1·7	13	36	3	0·05	−0·36	17·7	+ 3·4	27	+ 5
	Shields	50	28	46·4	31·1	38·8	− 0·7	12	42	2	0·04	−0·35	*	*	*	*
	Scarborough ℳ	50	32	45·2	35·9	40·6	+ 1·2	9	24	3	0·05	−0·39	*	*	*	*
	York	50	28	46·3	34·0	40·5	+ 1·5	14	32	0	—	−0·43	11·3	− 0·7	17	− 1
	Spurn Head	47	35	43·4	36·9	40·2	+ 0·9	4	19	2	0·04	−0·30	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	50	29	44·0	34·0	39·0	+ 0·5	6	29	2	0·03	−0·42	14·9	− 0·1	23	0
	Yarmouth	47	30	40·7	31·7	36·2	− 2·3	0	41	2	0·06	−0·40	*	*	*	*
	Geldeston	49	28	43·2	31·7	37·5	− 1·7	3	37	1	0·01	−0·37	14·6	− 1·6	22	− 3
	Cambridge	50	31	46·0	33·7	39·9	+ 0·9	11	32	0	—	−0·38	15·6	+ 0·4	23	0
	Rothamsted	50	31	44·9	33·6	39·3	+ 0·9	8	32	0	—	−0·53	17·8	?	27	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	50	32	45·9	35·9	40·9	+ 1·9	11	24	1	0·01	−0·39	*	*	*	*
	Loughborough	49	33	45·9	36·9	41·4	+ 2·1	11	21	1	0·08	−0·37	*	*	*	*
	Stamford (Ketton Hall)	50	29	45·3	34·7	40·0	+ 0·7	9	28	1	0·05	?	*	*	*	*
	Cheadle ℳ	48	33	44·0	35·2	39·6	+ 1·8	6	25	1	0·02	−0·59	*	*	*	*
	Churchstoke ℳ	48	29	44·9	34·0	39·5	+ 0·5	8	30	2	0·05	−0·53	10·7	− 3·8	16	− 6
	Hereford ℳ	50	32	48·1	35·8	42·0	+ 2·0	17	17	1	0·07	−0·45	*	*	*	*
	Cirencester	47	27	45·3	31·0	38·2	− 0·3	9	41	0	—	−0·64	27·1	+11·0	40	+17
	Oxford	49	33	46·4	35·0	40·7	+ 0·9	12	28	0	—	−0·49	23·5	+ 8·9	35	+14
5. ENGLAND, S.	London	49	30	44·6	32·9	38·8	− 1·6	7	34	0	—	−0·44	12·5 †	+ 4·2†	19†	+ 6 †
	Strathfield Turgiss ℳ	48	25	44·5	31·5	38·0	− 1·7	7	39	2	0·04	−0·46	*	*	*	*
	Dungeness	45	30	41·4	32·3	36·9	− 3·3	0	36	0	—	−0·50	*	*	*	*
	Hastings (St. Leonards)	46	30	43·0	32·8	37·9	− 2·6	3	33	1	0·02	−0·51	17·5	− 1·5	26	− 1
	Southampton	51	27	45·7	32·6	39·2	− 1·9	10	36	0	—	−0·65	22·4	+ 6·2	33	+10
	Hurst Castle	48	27	43·9	32·9	38·4	− 2·8	5	33	0	—	−0·60	*	*	*	*
	Stowell ℳ	48	24	44·1	31·0	37·6	− 1·6	6	40	1	0·02	?	21·7 †	? †	32†	? †
6. SCOTLAND, W.	Laudale (Loch Sunart)	54	32	47·3	35·9	41·6	+ 1·8	15	25	5	0·77	−0·95	*	*	*	*
	Glasgow	50	31	44·4	35·1	39·8	+ 0·8	7	26	3	0·19	−0·67	15·5	+ 6·5	24	+ 8
	Ardrossan	50	31	47·1	35·0	41·1	+ 0·6	14	28	2	0·12	−0·68	*	*	*	*
	Glenlee S	49	19	44·2	32·1	38·2	+ 0·1	6	37	6	0·20	−1·11	*	*	*	*
	Douglas (Isle of Man)	50	29	46·4	36·0	41·2	+ 0·3	12	24	2	0·09	−0·80	13·6	− 1·9	21	− 3
7. ENGLAND, N.W.	Newton Reigny	47	23	44·9	31·1	38·0	+ 0·8	8	40	2	0·03	−0·71	14·8	+ 2·7	23	+ 3
	Stonyhurst	48	32	44·5	35·9	40·2	+ 1·2	7	23	3	0·20	−0·66	8·7	− 3·3	13	− 7
	Blackpool ℳ	48	33	43·6	36·2	39·9	+ 0·5	4	21	1	0·08	−0·52	13·2	− 1·8	20	− 1
	Manchester	52	33	46·1	36·6	41·4	+ 2·6	11	22	4	0·13	−0·43	*	*	*	*
	Liverpool Obsy. (Bidston)	50	34	45·7	37·6	41·7	+ 1·5	10	18	2	0·06	−0·37	*	*	*	*
	Llandudno ℳ												15·8	+ 0·8	24	+ 1
	Holyhead	49	34	47·1	39·4	43·3	+ 1·3	20	7	3	0·25	−0·42	*	*	*	*
8. ENGLAND, S.W.	Llandovery	50	27	47·0	33·0	40·0	− 1·1	14	35	3	0·12	−0·92	*	*	*	*
	Pembroke	48	39	47·0	40·6	43·8	+ 1·3	18	4	3	0·05	−0·69	20·4	+ 2·4	30	+ 4
	Arlington (N. Devon)	48	26	45·4	31·7	38·6	− 1·5	10	39	1	0·04	−0·98	*	*	*	*
	Cullompton ℳ	51	23	46·7	28·8	37·8	− 2·7	13	50	1	0·03	−0·70	27·2	+12·2	41	+19
	Falmouth	50	32	46·1	36·3	41·2	− 2·1	11	23	1	0·05	−1·01	30·3	+12·3	45	+19
	Plymouth	50	30	46·1	33·9	40·0	− 3·0	11	31	0	—	−0·78	24·4	+ 6·4	36	+11
	Prawle Point	52	32	45·6	36·0	40·8	− 1·6	10	24	1	0·01	−0·52	*	*	*	*
9. IRELAND, N.	Malin Head	49	34	46·1	38·0	42·1	+ 0·1	18	11	3	0·11	?	*	*	*	*
	Londonderry	51	31	46·8	37·1	42·0	− 0·5	13	14	3	0·07	−0·68	*	*	*	*
	Mullaghmore	52	32	47·9	38·3	43·1	+ 0·6	23	10	2	0·07	−0·63	*	*	*	*
	Belmullet	50	34	47·7	37·7	42·7	+ 0·5	23	12	2	0·10	?	*	*	*	*
	Markree Castle	51	20	47·3	34·0	40·7	+ 0·2	15	32	3	0·05	−0 66	14·7	0·0	23	+ 2
	Brookeborough	50	20	46·4	32·5	39·5	− 0·3	12	37	1	0·09	−0·71	*	*	*	*
	Armagh	51	25	47·3	35·2	41·3	+ 1·3	15	28	2	0·03	−0·57	17·6	+ 3·1	27	+ 6
	Donaghadee	53	22	48·7	32·7	40·7	− 0·3	19	37	1	0·02	−0·59	*	*	*	*
	Edgeworthstown	50	23	47·0	33·3	40·2	+ 0·4	14	34	4	0·06	−0·64	*	*	*	*
10. IRELAND, S.	Dublin	52	30	48·0	36·8	42·4	+ 0·2	25	15	1	0·03	−0·49	12·6	− 3·6	19	− 6
	Parsonstown	52	24	48·3	31·9	40·1	− 0·1	18	40	1	0·03	−0·55	12·5	− 3·5	19	− 5
	Kilkenny	57	27	49·6	33·3	41·5	− 0·5	21	36	3	0·08	−0·62	*	*	*	*
	Waterford	50	32	48·6	37·1	42·9	− 0·4	27	14	1	0·02	−0·69	*	*	*	*
	Roche's Point	52	36	49·4	39·6	44·5	+ 0·5	28	7	3	0·31	−0·91	*	*	*	*
	Valencia	53	36	50·1	40·4	45·3	+ 0·1	30	4	4	0·16	−1·11	20·2	+ 2·7	30	+ 4
	Killarney	54	29	50·0	39·2	44·6	+ 0·4	30	8	4	0·14	?	*	*	*	*
	Foynes	53	30	49·2	36·0	42·6	− 0·5	29	17	1	0·12	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	52	37	48·0	40·7	44·4	− 1·6	21	4	2	0·02	−0·70	*	*	*	*
	Jersey	49	29	45·6	34·6	40·1	− 2·7	10	28	2	0·05	−0·59	32·8	+ 1·8	48	+16

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

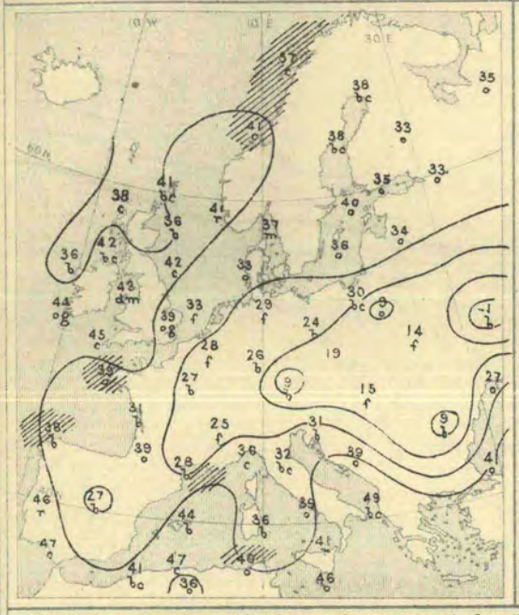
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

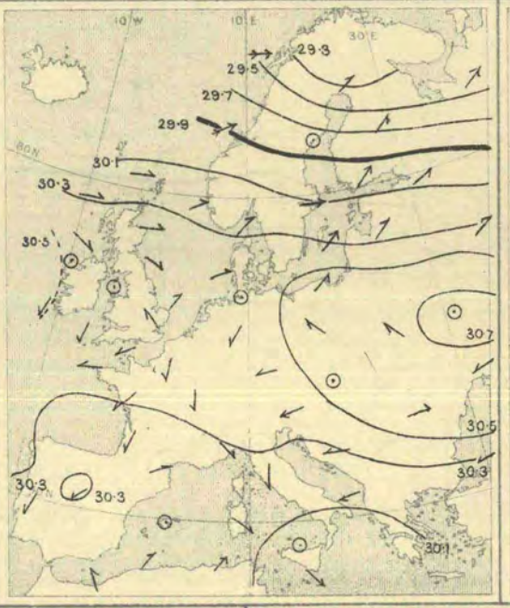
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 8th February.

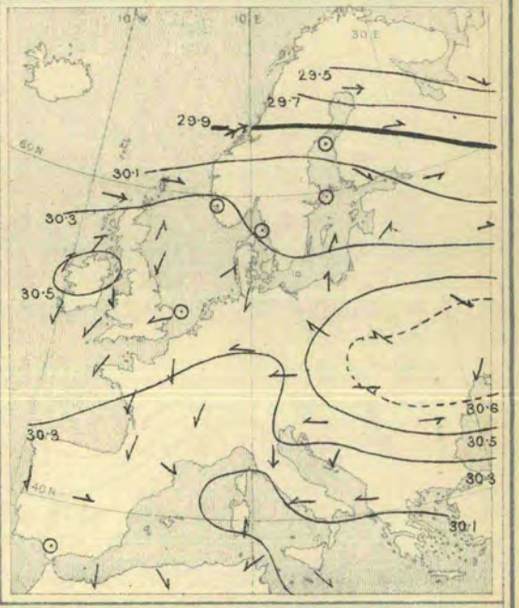
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the greater part of south-eastern, central, and western Europe, as well as in many parts of Ireland, Scotland, and Sweden; dull elsewhere, with fog in the east of England, and also at Lemberg and Kharkov; rain at Toulon and Lisbon, snow at Turin and Pesaro. Slight rain in Ireland and Scotland later, weather dull and gloomy in London. Lightning seen in the south of France.

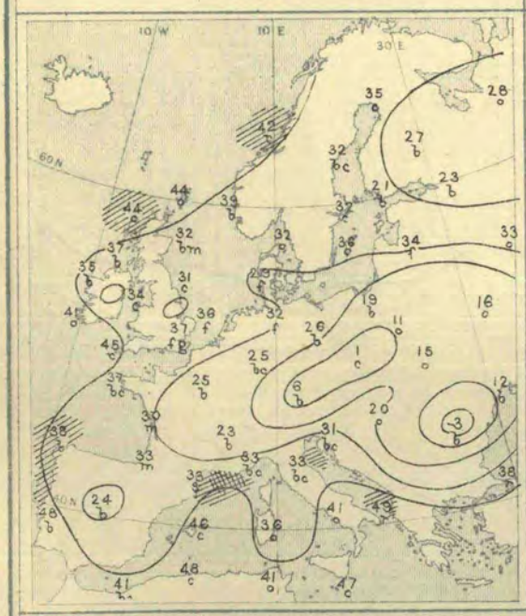
Temperature lower generally than of late, except in the north-east of Scotland and over the Balkan Peninsula. Highest readings below 50° everywhere, morning values varying from 42° to 39° at the Mediterranean stations and from 40° to 45° over the western and south-western parts of the British Islands; 41° at Sumburgh Head and Christiansund, much lower elsewhere. Lowest, −1° Fahr. at Kiev, +9° at Hermanstadt, Munich, and Warsaw, 13° at Breslau, 14° at Lemberg, 15° at Buda Pesth and Vienna; 28° at Perpignan, 32° at Leghorn and Florence, 36° at Nice. Remaining below 50° over the British Islands all day, below 40° over Germany and central France, not exceeding 25° at Munich.

Wind Westerly to South-Westerly, strong to a gale, over northern Europe, Westerly, light, in Scotland, Northerly, light, in Ireland, North-Easterly, moderate to fresh, on the Mediterranean coasts of Europe, very variable elsewhere. A moderate to strong Southerly breeze reported at the Algerian stations generally. Subsequently veering to the Westward or North-Westward over northern Europe and falling light.

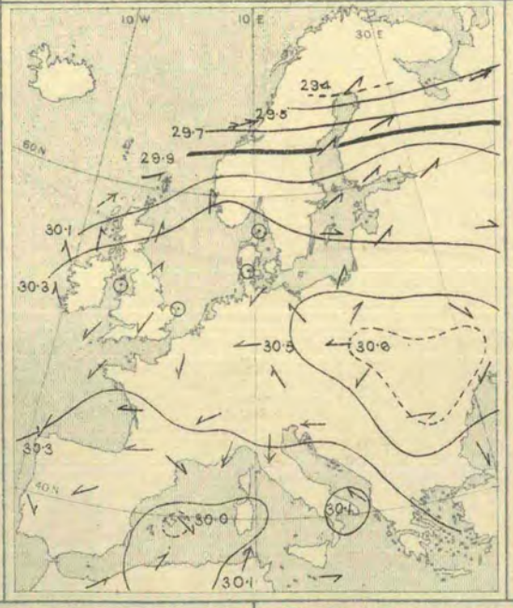
Barometer highest, 30·7 ins. and more to 30·5 ins. over the southern half of Russia, Austria, Poland, and eastern Germany, and apparently exceeding 30·5 ins. off the west of Ireland; exceeding 30·4 ins. over the whole of Ireland, England, and the Netherlands. Lowest, 29·3 ins. and less in a depression over Lapland, 30·0 ins. and less in another near Malta. Gradients steep over the northern countries only. New anticyclone advancing over Ireland from the westward later; depression over Lapland moving eastwards.

Monday, 9th February.

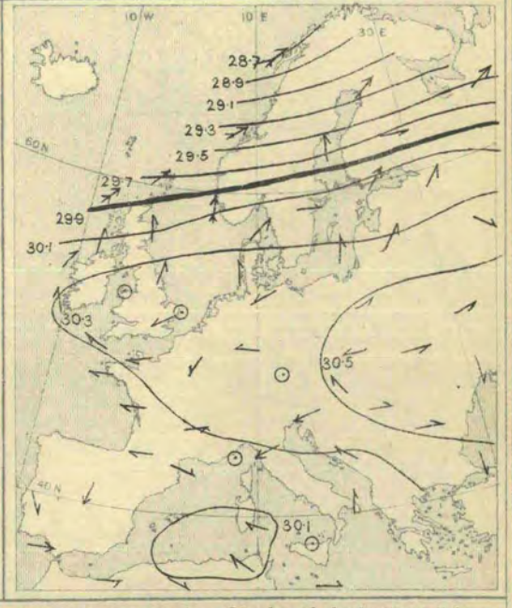
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the greater part of western and central Europe, as well as in Finland and the south of Russia, but dull and misty at several of the English stations and foggy over Denmark and the Netherlands. Dull in Italy, Austria, and central Russia, with rain at Brindisi; snow reported at Perpignan. Slight rain falling during day in the Shetlands and Hebrides and larger amounts in the west of Norway; lightning seen at Christiansund at night.

Temperature highest, 49° at Brindisi, 48° at Lisbon and Algiers, 47° at Malta, and 46° at Palma; above 40° in the extreme south-west and north of the United Kingdom, as well as in the west of Norway. Lowest, −3° Fahr. at Hermanstadt, +1° at Cracow, 6° at Munich, 8° at Nicolaieff, and 11° at Warsaw and Kharkov; below the freezing point in the north-east of Great Britain, and also in the eastern and central parts of Ireland. Daily maxima below 40° on the eastern and southern coasts of England, frost occurring in the same localities at night. Thermometer exceeding 55° in Algeria, Sicily, and the extreme south of Spain.

Wind South-Westerly over the more northern parts of our Islands and the Continent, light or moderate in force generally, but strong to a gale in the Hebrides, and also at Christiansund and Ulesborg. Light from the South-Eastward over central Europe and from the Eastward or North-Eastward over England, France, and Spain; strong from the Northward in the north of Italy, Southerly or South-Westerly in Algeria. Subsequently increasing to a strong gal from the South-Westward in the Shetlands and to a severe gale from the same quarter in the west of Norway; little change elsewhere.

Barometer highest, 30·6 ins. and upwards over eastern Austria and the extreme south of Russia 30·4 ins. and upwards in a large anticyclone extending across Europe to England and Ireland. Lowest, 29·4 ins. and less in a deep depression lying over the north of Scandinavia, 30·0 ins. and less in a small shallow disturbance lying near the Balearic Isles. New depression of considerable size and depth approaching the west of Norway in evening and gradients becoming very steep in far north.

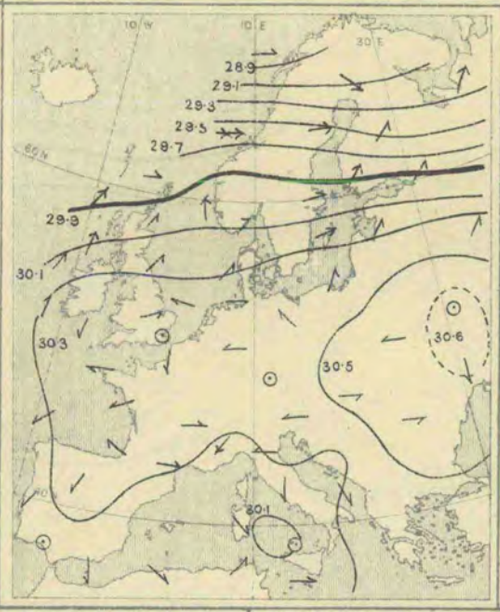
Judd & C° Lith. 73 & 75, Farringdon Rd & Doctors' Comm

III.—SUMMARY OF WEATHER OVER EUROPE.

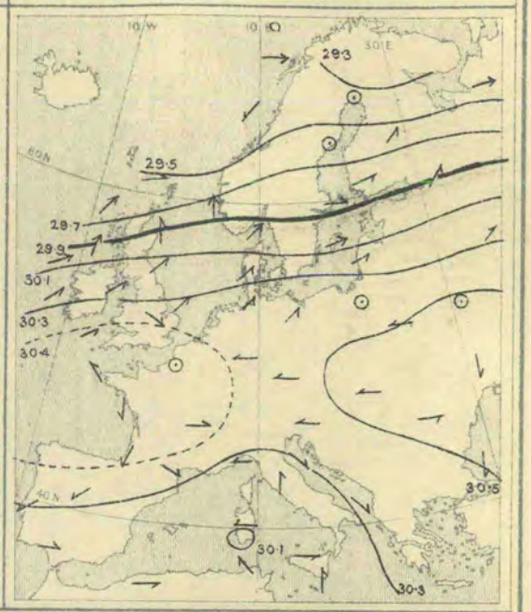
Tuesday, 10th February.

Temperature and Weather. 8 a.m.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the greater part of central and southern Europe, but cloudy and misty in many parts of the United Kingdom. Dull over central and northern Russia; foggy over Denmark, the Netherlands, and central France; rainy in the west of Norway, snow falling at the Scaw. Rain falling later in the south of Ireland and the north of Scotland, and snow at some of the Norwegian stations.

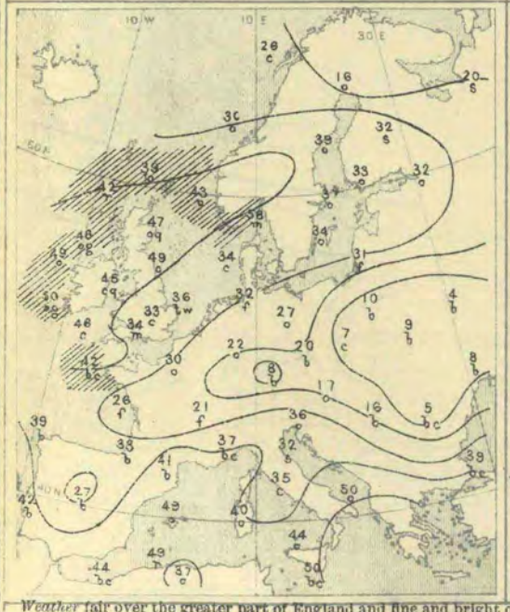
Temperature highest, (1) 53° at Nemours, 50° at Brindisi, 48° at Malta, and 47° at Lesina; (2) 48° at Stornoway, 46° at Valencia Island, and 45° at Wick; above 40° in many of the western and northern parts of the United Kingdom. Lowest, 4° at Hermanstadt, 5° at Odessa and Nicolaieff, 7° at Munich, and 8° at Warsaw; below 20° in many parts of eastern and central Europe and below the freezing point over France and central Spain. Daily maxima above 45° over the greater part of the United Kingdom, but frost occurring over England at night.

Wind light to fresh from the South-Westward over the northern half of our Islands, and also over Denmark and north Germany; strong to a gale from the same quarter or from West over Scandinavia and northern Russia. Light from the Southward or South-Eastward in Germany and from the Eastward in France, moderate from North-East in Spain and from North or North-West in Italy, variable over the southern parts of England, as well as in Austria and the south of Russia. Gale over northern Russia subsiding later, but wind increasing considerably from the South-Westward in the north and north-west of our Islands.

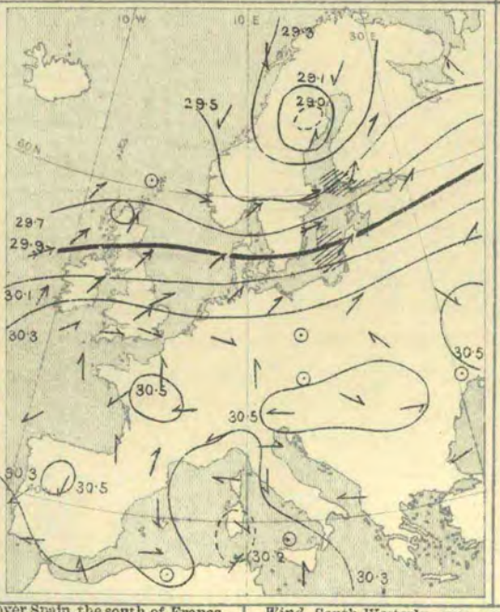
Barometer highest, 30·6 ins. and upwards in the south of Russia, 30·3 ins. and upwards in a large anticyclone extending from Russia across central Europe to England, the south of Ireland, and the Bay of Biscay. Lowest, 28·9 ins. and less in a deep depression lying over the north of Scandinavia. Depression subsequently moving eastwards, but new disturbance beginning to approach the extreme north of our Islands from the Atlantic.

Wednesday, 11th February.

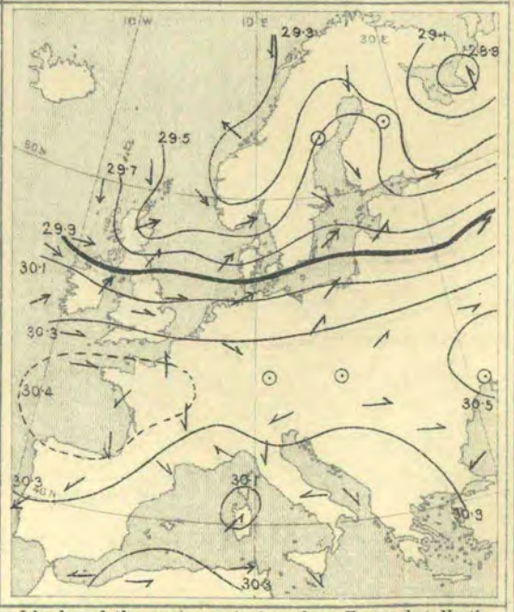
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fair over the greater part of England and fine and bright over Spain, the south of France, and the whole of central and eastern Europe. Dull elsewhere, with fog over the Netherlands and France, rain in the north of Scotland, and snow over northern Russia, as well as at Pesaro. Heavy falls of rain and snow occurring later in the north of Scotland and the west of Norway, the largest amounts being 1·2 ins. at Christiansund, 1·1 ins. at Wick, and 1·0 in. at Stornoway; showers occurring in the south-west of our Islands.

Temperature highest, (1) 50° at San Fernando, Brindisi, and Malta, and 49° at Palma and Algiers; (2) 50° at Valencia Island and 49° at Nairn, Leith, Shields, Mullaghmore, and Belmullet; above 40° in all but the south-eastern parts of the United Kingdom. Lowest, 4° at Kiev, 5° at Hermanstadt and Nicolaieff, 7° at Cracow, and 8° at Munich and Odessa; below 20° in most parts of central and eastern Europe, and below the freezing point over France and central Spain. Daily maxima exceeding 50° at many of our western and northern stations and reaching 55° at Aberdeen, but frost occurring in several parts of the Kingdom at night.

Wind South-Westerly over our Islands and the greater part of northern Europe, but North-Easterly or Northerly in the north of Scandinavia; strong to a gale in force in the north of Ireland and also over the south of Scandinavia, the Baltic, and the Gulf of Finland. Light from the Eastward or North-Eastward over Spain and the south of France, variable over Italy and Austria, Southerly in Algeria. Subsequently increasing to a gale over the northern parts of our Islands generally and shifting to the Northward in the north of Scotland. Gale moderating over the Baltic and the south of Scandinavia.

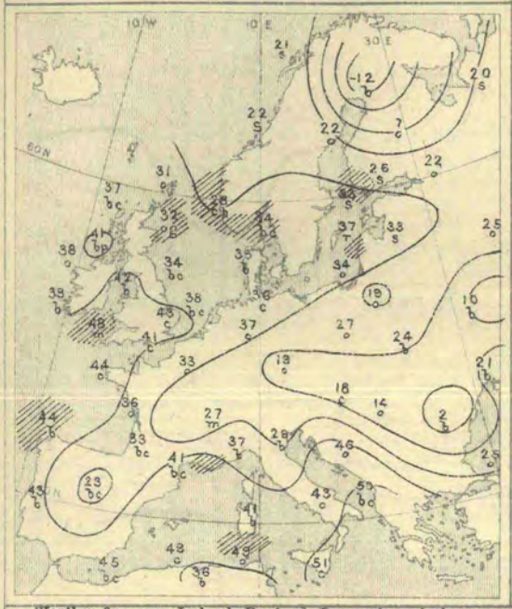
Barometer, 30·3 ins. to 30·5 ins. and upwards in an anticyclone lying over the entire southern half of Europe. Lowest, 29·0 ins. and less in a well-marked depression lying over central Sweden; small shallow disturbance shown over the north of Scotland. Main depression subsequently travelling away to the neighbourhood of the White Sea, but new disturbance forming over Norway. Scotch depression becoming deeper and moving eastwards to the North Sea.

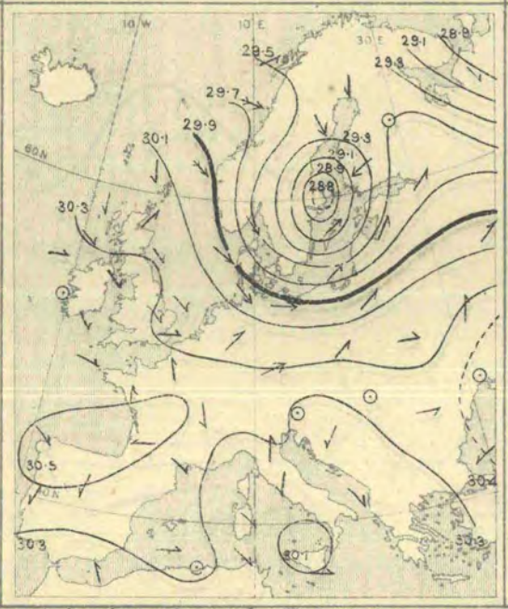
Judd & Cº Lith 73 & 75, Farringdon Rd & Doctors' Commons

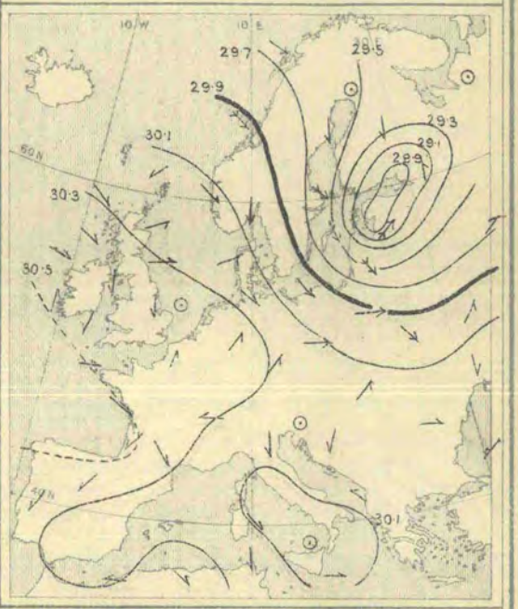
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 12th February.

Temperature and Weather.	Barometer and Wind.	
8 a.m.	8 a.m.	6 p.m.







Weather fine over Ireland, England, Denmark, and the greater part of southern and eastern Europe. Dull elsewhere, with snow or sleet over central Scotland, Scandinavia, north Germany, the Baltic, and the Gulf of Finland. Snow falling during day in the north of Scotland, as well as at some of the French stations; large quantities reported over Finland.

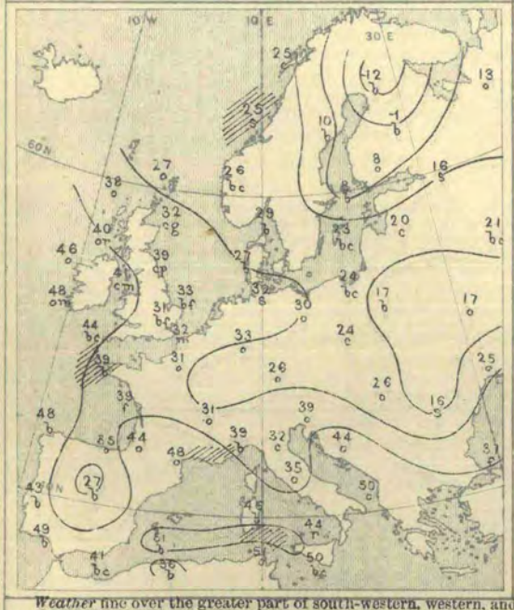
Temperature highest, 51° at Tunis and Malta, 50° at Brindisi, and 49° at Algiers and La Calle; above 40° in the west and south of England. Lowest, (1) −12° Fahr. at Haparanda, +1° at Uleaborg, 7° at Kuopio, and 20° at Archangel; (2) 2° at Hermanstadt, 4° at Nicolaieff, 6° at Kharkov, and 10° at Kiev; below the freezing point over central Ireland and the north of Scotland, as well as over France, central Spain, and the north of Italy. Daily maxima below 40° in the north of Scotland, but a little above 50° at many of the Irish stations and above 55° in several parts of southern Europe.

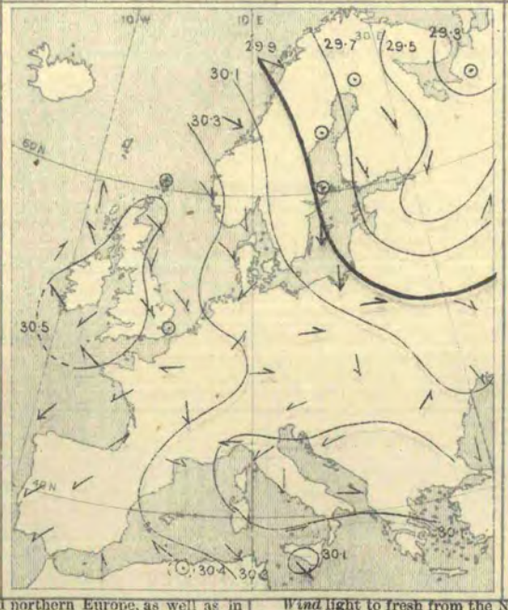
Wind light from the North-Westward over the greater part of our Islands and strong to a gale from the same quarter in Norway and Denmark. Strong to a gale from South-West over north Germany and the Baltic, and from the Eastward or North-Eastward over the Gulf of Finland. Light and variable over France and Austria, North-Easterly over Spain, North-Westerly over Italy and Tunis. Wind in Norway subsiding later, but gale blowing strongly from North-Westward over the Baltic.

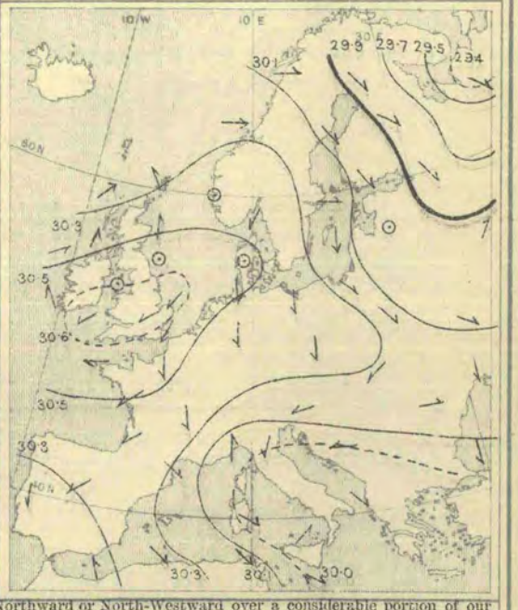
Barometer highest, 30·4 ins. to 30·5 ins. in an anticyclone extending from the Atlantic over France, Spain, and the west and south of Ireland, and also in another system lying over the Black Sea and the south of Russia. Lowest, 29·3 ins. to 28·8 ins. and less in a deep depression having its centre near Stockholm, 30·1 ins. and less in a shallow system lying over Sicily. Swedish depression subsequently moving eastwards and becoming irregular in shape; gradients steep over Russia in evening.

Friday, 13th February.

Temperature and Weather.	Barometer and Wind.	
8 a.m.	8 a.m.	6 p.m.







Weather fine over the greater part of south-western, western, and northern Europe, as well as in Algeria, but dull in the extreme west and north-west of our Islands, with rain at Malin Head. Dull and unsettled over the eastern and central countries, and also in Italy, with snow in several places and rain at Palermo. Cloudy, showery weather extending later over all the more western and northern parts of the United Kingdom.

Temperature highest, (1) 51° at Algiers and Tunis, 50° at Brindisi and Malta, 49° at San Fernando, and 48° at Corunna and Perpignan; (2) 48° at Valencia Island, 46° at Belmullet, and 44° at Roche's Point and Scilly; above 40° at most of our western stations. Lowest, −12° at Haparanda, −8° at Uleaborg, −1° at Kuopio, and +8° at Hangö, Helsingfors, and Stockholm; below 20° at most of the Swedish and Russian stations, and below the freezing point over the greater part of the Continent, as well as in the north of Scotland and the south-east of England. Considerable rise taking place later in the extreme north of our Islands, but thermometer remaining below 40° at some of our eastern stations.

Wind light to fresh from the Northward or North-Westward over a considerable portion of our Islands and the Continent, but North-Easterly in Spain and Southerly in the extreme west of the United Kingdom, as well as over the central and southern parts of Russia. South-Westerly breezes setting in later over all the more western and northern parts of the United Kingdom and blowing strongly in the Hebrides. Wind veering to the North-Eastward in the south and south-east of England.

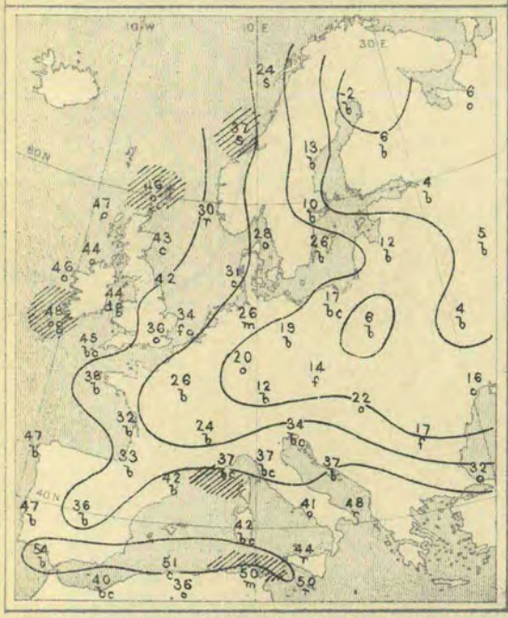
Barometer highest, 34·4 ins. to 30·5 ins. and more in an anticyclone covering our Islands, the Bay of Biscay, the west of France, and the greater part of Spain. Lowest, 29·3 ins. and less in a depression lying over the north of Russia, 30·1 ins. and less in a shallow area lying over Italy and Turkey. Depression approaching the north of our Islands later and barometer falling somewhat decidedly in Scotland and the north of Ireland. Russian disturbance moving away in an easterly direction.

Judd & Co. Lith. 75 & 75 Farringdon Rd. & Doctors Commons.

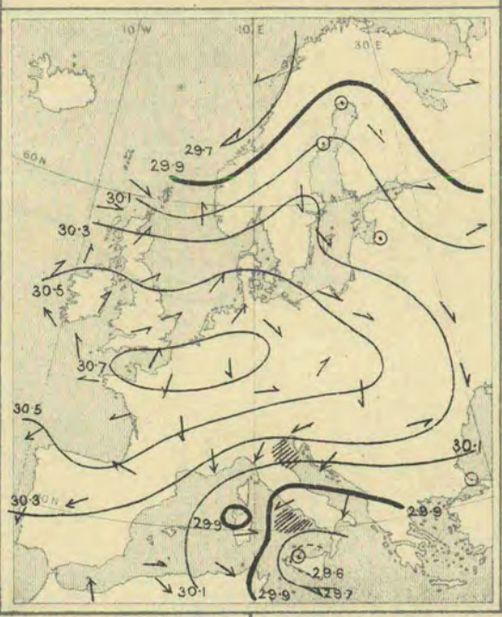
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 14th February.

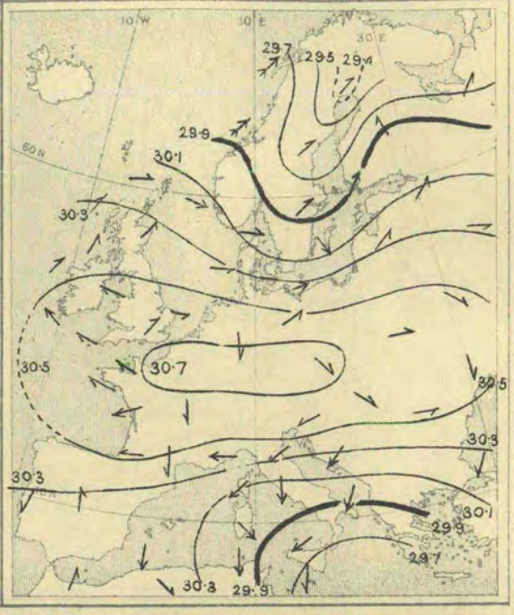
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the greater part of the Continent, but rainy over the south of Italy and the adjacent parts of the Mediterranean and snowy in the west of Norway. Cloudy or overcast o r the United Kingdom, with slight rain at some of the English stations. Snow falling le r in Sweden and Finland; sky clearing in the south-west of our Islands.

Temperature highest, (1) 54° at Oporto and San Fernando, 51° at Algiers, and 50° at La Calle and Malta; (2) 48° at Valencia Island and 47° at Stornoway and Roche's Point: reaching 45° or a little more at several of our western and northern stations. Lowest, −3° Fahr. at Ulcaborg, −2° at Haparanda, 0° (zero) at Kuopio, +3° at Helsingfors, and 4° at St. Petersburg and Kiev; below 10° at most of the Russian stations, and below 20° in many parts of Germany and Austria. Daily maxima below 45° in the east and south-east of England, but exceeding 50° at some of the Irish and Scotch stations. Thermometer reaching 60° or a little more over Spain and Algeria.

Wind light or moderate from the South-Westward over the greater part of our Islands, as well as in Norway, Denmark, and the Netherlands. Light from the North-Westward or Northward over the Baltic, Russia, and the greater part of central Europe. Moderate from the North-Eastward over France and Spain, strong from the same quarter over Italy, with a gale at Pesaro; strong from the North-Westward over Tunis and eastern Algeria. Subsequently increasing to a gale from the South-Westward in the west of Norway.

Barometer highest, 30·5 ins. to 30·7 ins. and upwards in a large anticyclone covering Ireland, England, France, and the greater part of central Europe. Lowest, 29·6 ins. and less in a well-marked depression lying over the Mediterranean, in the neighbourhood of Sicily, and also in a shallower system lying over northern Russia; 29·7 ins. and less in a third depression lying off the west of Norway. All three disturbances moving eastwards during day, but motion of southern depression very gradual.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During the greater part of the week a large anticyclone extended from east to west over all the more central parts of Europe, while depressions of considerable size and occasionally of great depth travelled eastwards across the north of Scandinavia. In the former regions the winds were therefore light and variable, with fair weather and low temperatures, especially over Russia, Germany, and Austria, while in the more northern countries the wind was often strong to a gale from the South-Westward, with falls of rain or snow. On the 11th a well-marked secondary disturbance which appeared over Scotland occasioned unsettled weather in the north of our Islands also, with heavy snow in Caithness and the Hebrides. Between the 12th and 13th the eastern portion of the anticyclone gave way temporarily as a well-marked depression travelled from Norway to central Russia, but at the close of the week the old conditions were fully re-established.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 32.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	13·2	?	21	?	EASTBOURNE	17·4	?	28	?
OSWALDKIRK	14·6	?	22	?	TORQUAY	31·0	?	46	?
WORKSOP	10·2	−3·0	15	− 5	ARLEY (County Cavan)	17·4	?	27	?
THURCASTON	6·5	−6·0	10	− 8					

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, AND 21, DREWY STREET, GLASGOW; AND HODGES, FIGGIS, & CO., 104, GRAFTON STREET, DUBLIN.

VOL. VIII. No. 7]. *Third Series.* WEEK ENDING SATURDAY, 21ST FEBRUARY, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1856-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 38.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	For the Week. Difference from Mean.	For the Week. Below 42°	For the Week. Difference from Mean.	From January 4th, 1891. Above 42°	From January 4th, 1891. Difference from Mean.	From January 4th, 1891. Below 42°	From January 4th, 1891. Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	61	22	49·6	36·8	43·2	5 above.	30	+25	15	−19	78	+34	215*	− 20
	1. SCOTLAND, EAST	62	22	50·1	33·6	41·9	4 above.	23	+14	35	0	72	+16	277	+ 7
	2. ENGLAND, N.E.	59	23	45·3	31·9	38·6	1 below.	9	0	38	+ 8	65	+15	285	+ 42
	3. ENGLAND, EAST	56	22	43·3	28·8	36·1	3 below.	4	− 7	47	+13	46	−10	376	+ 99
	4. MIDLAND COUNTIES	57	23	45·7	28·0	36·9	3 below.	10	− 3	52	+21	71	+ 4	328	+ 58
	5. ENGLAND, SOUTH	55	24	46·7	31·3	39·0	2 below.	13	− 2	41	+16	53	−28	321	+114
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	55	25	47·7	36·4	42·1	2 above.	24	+15	16	− 9	80	+12	177	− 17
	7. ENGLAND, N.W.	59	24	48·0	33·7	40·9	1 above.	17	+ 8	34	+ 8	68*	+ 7	231*	+ 34
	8. ENGLAND, S.W.	60	24	48·6	34·9	41·8	0 (average)	18	0	30	+10	79	−31	233	+ 87
	9. IRELAND, NORTH	56	24	50·4	35·9	43·2	2 above.	34	+20	17	− 6	108	+13	178	+ 7
	10. IRELAND, SOUTH	60	26	51·4	36·9	44·2	1 above.	37	+16	14	− 3	146	+ 3	154	+ 26
	— CHANNEL ISLANDS	54	29	49·5	38·2	43·9	1 below.	29	+ 7	11	+ 5	122	−27	110	+ 48

Rainfall.

	DISTRICTS. (See p. 38.)	For the Week. Number of Rainy Days.	For the Week. Total Fall.	For the Week. More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	From January 4th, 1891. Difference from Mean.	From January 4th, 1891. Total Fall.	From January 4th, 1891. Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	1	less than ½.	10 less.	37	+ 1	9·3*	+ 1·0
	1. SCOTLAND, EAST	0	—	6 less.	19	− 8	1·8	− 2·8
	2. ENGLAND, N.E.	0	—	4 less.	18	− 7	1·0	− 2·0
	3. ENGLAND, EAST	0	—	4 less.	21	− 5	1·8	− 1·3
	4. MIDLAND COUNTIES	0	—	5 less.	16	−10	1·9	− 1·9
	5. ENGLAND, SOUTH	0	—	5 less.	19	− 7	2·6	− 1·5
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	1	less than ½.	10 less.	28	− 4	4·7	− 4·0
	7. ENGLAND, N.W.	0	—	6 less.	17*	−12	2·2	− 2·6
	8. ENGLAND, S.W.	0	—	8 less.	18	−12	3·6	− 2·7
	9. IRELAND, NORTH	1	1	6 less.	25	− 8	2·2	− 3·0
	10. IRELAND, SOUTH	1	1	7 less.	22	− 9	2·7	− 3·7
	— CHANNEL ISLANDS	0	—	6 less.	20	−13	2·3	− 2·9

Bright Sunshine.

	DISTRICTS. (See p. 38.)	For the Week. Hours recorded.	For the Week. Difference from Mean.	For the Week. Percentage of possible Duration.	For the Week. Difference from Mean.	From January 4th, 1891. Hours recorded.	From January 4th, 1891. Difference from Mean.	From January 4th, 1891. Percentage of possible Duration.	From January 4th, 1891. Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	20	+ 3	30	+ 6	62	+ 5	16	+ 1
	1. SCOTLAND, EAST	33	+18	49	+27	106	+13	27	+ 3
	2. ENGLAND, N.E.	23	+ 7	34	+ 9	93	+28	24	+ 7
	3. ENGLAND, EAST	20	+ 1	29	+ 2	122	+29	29	+ 7
	4. MIDLAND COUNTIES	28	+12	41	+18	127	+48	30	+11
	5. ENGLAND, SOUTH	33	+15	47	+21	132	+54	30	+12
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	20	+ 4	29	+ 7	93	+24	23	+ 6
	7. ENGLAND, N.W.	34	+18	50	+27	110	+38	26	+ 9
	8. ENGLAND, S.W.	40	+24	56	+34	155	+63	35	+12
	9. IRELAND, NORTH	31	+14	46	+21	119	+37	29	+ 9
	10. IRELAND, SOUTH	33	+15	48	+21	135	+37	32	+ 9
	— CHANNEL ISLANDS	54	+31	76	+44	198	+76	44	+16

General Remarks.

Weather during this week was very dry and quiet over the whole Kingdom. In Ireland and Scotland it was generally fair and mild, but over England cold and unusually foggy. In many places, however, the fog cleared during the daytime and in such regions a large amount of sunshine was consequently experienced.

Temperature has been rather above the mean in Ireland and the west of Scotland, and as much as 4° or 5° above in the north and east of Scotland. In most of the English districts it has varied from 1° to 3° below the normal. The highest of the maxima, which were recorded on the 15th in England and on the 19th at most of the Irish and Scotch stations, ranged from 62° in "Scotland E.," 61° in "Scotland N.," and 60° in "England S.W." and "Ireland S." to 54° in the "Channel Islands." Towards the end of the week the daily maxima at many of the English stations were no higher than 35°. The lowest of the minima were recorded during the latter half of the week, and ranged from 22° in the north and east of Scotland and the east of England and 23° in the "Midland Counties" to 29° in the "Channel Islands."

Rainfall has been almost absent from our Islands.

Bright Sunshine shows a considerable increase in nearly all parts of the Kingdom and has exceeded the mean very generally. The percentage of the possible duration ranged from 76° in the "Channel Islands" to 56° in "England S.W.," 50° in "England N.W.," and to 29° in "Scotland W." In some districts the local variations in the amount have been very large.

Barometer and Wind.—The distribution of pressure has again become anticyclonic and no depressions have appeared in our Islands or their immediate vicinity. Calms or variable Easterly airs have been most prevalent in the southern districts and light or moderate Southerly to South-Westerly winds in the west and north.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 37 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	50	38	47·6	40·6	44·1	+ 5·6	21	4	2	0·04	−0·75	*	*	*	*
	Stornoway	53	25	49·3	40·1	44·7	+ 5·7	27	5	2	0·02	−0·95	19·6	+ 2·6	30	+ 6
	Wick	54	29	51·1	35·4	42·3	+ 5·1	37	18	1	0·03	−0·47	*	*	*	*
	Lairg ⚓	61	22	53·4	32·5	43·0	+ 6·4	47	27	1	0·01	−0·74	*	*	*	*
	Glencarron ⚓	?	?	?	?	?	?	?	?	? 2	0·11	−1·48	*	*	*	*
	Fort Augustus ⚓	54	26	49·4	35·3	42·4	+ 3·7	31	19	0	—	−0·90	19·5	?	29	?
	Fort William ⚓	49	30	46·7	36·7	41·7	+ 2·5	13	22	1	0·04	−1·86	20·4	?	30	?
1. SCOTLAND, E.	Nairn	59	24	52·4	36·4	44·4	+ 5·5	40	16	0	—	−0·37	*	*	*	*
	Aberdeen	55	29	50·0	32·7	41·4	+ 2·4	22	39	0	—	−0·60	36·4	+18·5	54	+28
	Braemar ⚓	56	22	50·0	30·5	40·3	+ 4·8	22	46	0	—	−0·73	43·2 †	? †	64†	?†
	Ochtertyre ⚓	62	28	50·1	32·1	41·1	+ 3·6	23	40	0	—	−0·90	*	*	*	*
	Leith	55	27	49·4	35·7	42·6	+ 2·5	31	18	0	—	−0·36	*	*	*	*
	Marchmont ⚓	58	23	48·9	33·9	41·4	+ 3·6	19	33	0	—	−0·58	33·3	?	49	?
2. ENGLAND, N.E.	Alnwick Castle	49	27	44·4	32·7	38·6	− 0·3	7	35	0	—	−0·51	*	*	*	*
	Durham	59	23	48·6	29·4	39·0	+ 0·5	18	49	1	0·01	−0·40	28·8	+12·8	42	+18
	Shields	56	27	48·6	32·9	40·8	+ 1·0	18	37	0	—	−0·39	*	*	*	*
	Scarborough ⚓	52	26	44·0	32·9	38·5	− 1·4	6	34	0	—	−0·45	*	*	*	*
	York	55	25	43·9	29·9	36·9	− 2·9	5	44	0	0·01 ‡	−0·42	14·8	+ 0·6	22	+ 1
	Spurn Head	51	29	42·3	33·4	37·9	− 1·9	1	31	0	0·01 ‡	−0·32	*	*	*	*
3. ENGLAND, E.	Hillington ⚓	53	22	43·7	27·4	35·6	− 4·2	5	53	0	0·01 ‡	−0·44	20·3	+ 3·3	29	+ 4
	Yarmouth	50	25	39·9	30·0	35·0	− 3·8	0	49	1	0·03	−0·43	*	*	*	*
	Geldeston	55	24	43·5	29·7	36·3	− 3·1	4	44	0	0·01 ‡	−0·38	17·6	− 0·7	25	− 2
	Cambridge	56	25	44·6	28·3	36·5	− 3·1	7	50	0	—	−0·38	17·9	+ 0·9	26	+ 2
	Rothamsted	54	26	45·0	28·5	36·8	− 2·2	8	50	0	0·02 ‡	−0·49	25·9	?	37	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	57	25	43·1	27·3	35·2	− 4·6	3	52	0	—	−0·39	*	*	*	*
	Loughborough	57	26	43·9	28·7	36·3	− 3·7	5	48	0	—	−0·44	*	*	*	*
	Stamford (Ketton Hall)	56	24	43·6	27·9	35·8	− 4·2	4	51	0	0·01 ‡	?	*	*	*	*
	Cheadle ⚓	54	25	46·1	30·8	38·5	+ 0·4	11	42	0	—	−0·61	*	*	*	*
	Churchstoke ⚓	57	23	49·1	26·9	38·0	− 1·3	20	58	0	—	−0·55	37·6	+21·6	54	+30
	Hereford ⚓	55	25	48·6	27·9	38·3	− 2·2	18	54	0	—	−0·50	*	*	*	*
	Cirencester	53	24	45·6	25·9	35·8	− 3·2	10	59	0	0·02 ‡	−0·59	37·1	+18 9	53	+28
	Oxford	54	23	45·9	28·4	37·2	− 2·9	11	51	0	—	−0·48	25·7	+ 9·3	37	+14
5. ENGLAND, S.	London	52	29	44·4	32·0	38·2	− 2·8	7	37	0	0·01 ‡	−0·41	9·8 †	− 0·1†	14†	0†
	Strathfield Turgiss ⚓	55	25	46·4	28·7	37·6	− 2·6	12	50	0	—	−0·49	*	*	*	*
	Dungeness	53	24	44·7	30·3	37·5	− 3·3	8	43	0	0·03 ‡	−0·45	*	*	*	*
	Hastings (St. Leonards)	53	29	48·3	33·8	41·1	+ 0·3	18	33	0	0·02 ‡	−0·48	47·3	+25·1	68	+39
	Southampton	55	27	49·4	30·9	40·2	− 1·3	21	44	0	—	−0 61	35·4	+17·1	51	+26
	Hurst Castle	51	30	46·0	32·3	39·2	− 2·1	11	37	0	—	−0·56	*	*	*	*
	Stowell ⚓	53	28	47·9	30·8	39·4	− 0·5	17	44	0	—	?	34·8 †	? †	50†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart)	53	34	49·1	37·3	43·2	+ 3·2	28	13	1	0·03	−1·57	*	*	*	*
	Glasgow	50	29	45·9	36·0	41·0	+ 1·4	11	24	0	—	−0·80	11·6	− 1·4	17	− 1
	Ardrossan	54	35	47·9	39·4	43·7	+ 3·0	23	7	1	0·03	−0·63	*	*	*	*
	Glenlee ⚓	55	25	48·2	33·4	40·8	+ 2·5	17	34	1	0·04	−1·07	*	*	*	*
	Douglas (Isle of Man)	49	29	47·6	35·8	41·7	+ 0·7	16	26	0	0·01 ‡	−0·80	27·8	+ 9·7	41	+15
7. ENGLAND, N.W.	Newton Reigny	59	24	50·5	30·4	40·5	+ 2·9	24	47	0	—	−0·67	34·0	+18·8	50	+29
	Stonyhurst	49	26	46·2	32·1	39·2	− 0·3	12	38	0	—	−0·83	24·7	+ 8·6	36	+14
	Blackpool ⚓	54	30	47·9	34·6	41·3	+ 1·4	17	30	1	0·01	−0·57	?	?	?	?
	Manchester	55	25	46·1	31·4	38·8	− 0·7	11	40	0	—	−0·53	*	*	*	*
	Liverpool Obsy. (Bidston)	51	28	45·4	32·7	39·1	− 1·5	10	35	0	—	−0·41	*	*	*	*
	Llandudno ⚓	56	32	50·3	35·8	43·1	+ 1·1	34	17	0	—	−0·52	?44·1	?+27·1	?64	?+39
	Holyhead	53	35	49·3	38·9	44·1	+ 1·8	28	9	0	—	−0·62	*	*	*	*
8. ENGLAND, S.W.	Llandovery	60	24	52·1	27·6	39·9	− 1·8	28	58	0	—	−1·00	*	*	*	*
	Pembroke	52	35	46·9	37·9	42·4	− 0·3	20	11	0	—	−0·68	43·3	+23·1	62	+34
	Arlington (N. Devon)	57	30	50·3	32·0	41·2	+ 0·6	23	41	0	—	−1·02	*	*	*	*
	Cullompton ⚓															
	Falmouth	50	32	46·9	38·9	42·9	− 0·4	19	9	1	0·01	−0·96	41·7	+21·4	59	+31
	Plymouth	53	31	48·2	33·7	41·0	− 1·1	17	34	0	—	−0·71	43·5	+23·3	61	+33
	Prawle Point	56	37	47·1	39·1	43·1	+ 0·6	20	8	0	—	−0·50	*	*	*	*
9. IRELAND, N.	Malin Head	54	35	48·0	39·7	43·9	+ 1·4	23	6	2	0·04	?	*	*	*	*
	Londonderry	55	33	51·1	37·9	44·5	+ 1·7	35	11	1	0·01 ‡	−0·68	*	*	*	*
	Mullaghmore	56	35	52·0	40·0	46·0	+ 3·3	36	6	1	0·02	−0·68	*	*	*	*
	Belmullet	54	38	50·9	42·0	46·5	+ 4·3	32	0	1	0·03	?	*	*	*	*
	Markree Castle	53	24	50·7	34·1	42·4	+ 1·4	36	22	1	0·04	−0 65	30·0	+13·8	44	+21
	Brookeborough	55	28	50·5	33·1	41·8	+ 2·0	24	37	1	0·15	−0·58	*	*	*	*
	Armagh	54	24	50·9	31·3	41·4	+ 1·2	25	42	1	0·07	−0·51	29·7	+13·8	44	+21
	Donaghadee	52	28	49·1	33·1	41·1	+ 0·1	20	36	1	0·04	−0·56	*	*	*	*
	Edgeworthstown	55	28	50·7	31·0	40·9	+ 0·7	24	45	1	0·01	−0·68	*	*	*	*
10. IRELAND, S.	Dublin	51	32	49·3	35·8	42·6	− 0·4	17	30	1	0·01	−0·52	37·8	+19·8	55	+29
	Parsonstown	58	26	52·3	32·1	42·2	+ 0·3	43	28	1	0·04	−0·51	34·5	+16·5	50	+24
	Kilkenny	56	28	51·1	31·9	41·5	− 1·0	25	42	2	0·17	−0·50	*	*	*	*
	Waterford	54	32	50·3	36·5	43·4	− 0·6	33	15	1	0·19	−0·68	*	*	*	*
	Roche's Point	53	37	51·0	42·9	47·0	+ 3·0	35	0	1	0·36	−0·72	*	*	*	*
	Valencia	56	33	51·3	41·0	46·2	+ 0·9	34	3	1	0·08	−1·11	27·6	+ 8·4	39	+11
	Killarney	60	33	53·6	39·1	46·4	+ 1·9	43	8	2	0·18	?	*	*	*	*
	Foynes	56	31	52·1	35·6	43·9	+ 0·4	40	18	1	0·04	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	52	40	49·1	42·0	45·6	− 0·4	25	0	0	—	−0·65	*	*	*	*
	Jersey	54	29	49·9	34·3	42·1	− 0·9	33	22	0	0·01 ‡	−0·61	54·0	+31·0	76	+44

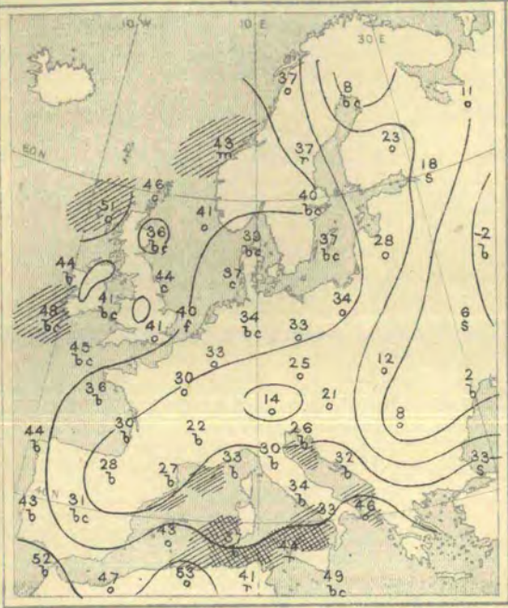
Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

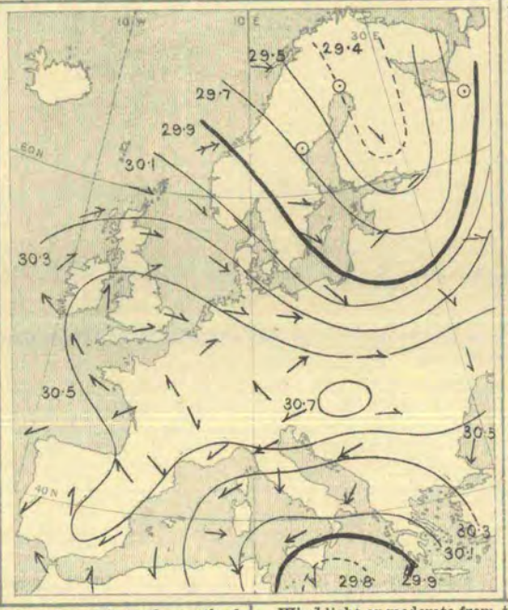
† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page. ‡ Wet fog or mist.

Sunday, 15th February.

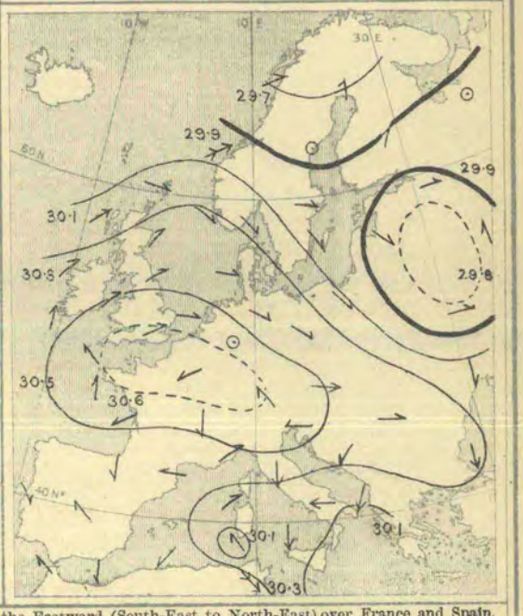
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 8 p.m.



Weather fine over nearly the whole of western and southern Europe, but dull in the north of Scotland and the west of Norway, hazy or foggy in the south and east of England, dull in most of the central countries, as well as in western Russia, Turkey, Algeria, and the south of Italy; snow falling at St. Petersburg, Warsaw, Kiev, and Constantinople, rain at Palermo and La Calle. Some rain falling later in Scandinavia and the north of Scotland and a large quantity over the eastern parts of Algeria.

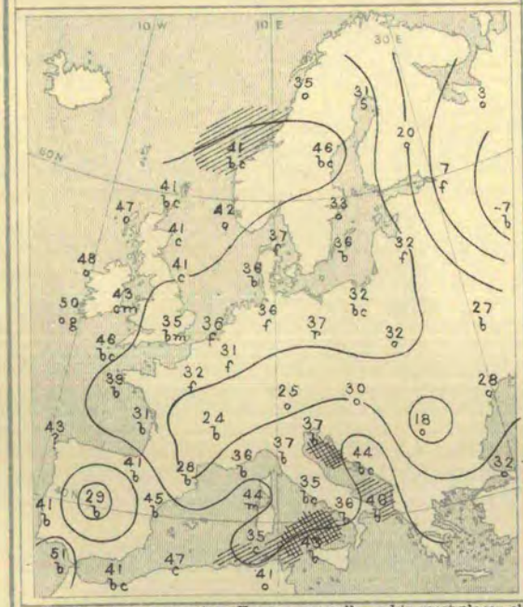
Temperature in morning highest (50° and more) at the extreme south-western stations and at Stornoway; 48° at Nairn and Valencia Island, 47° at Roche's Point; above 40° in most parts of the United Kingdom. Lowest, −2° at Moscow, 0° (zero) at Nicolaieff, +2° at Odessa, 5° at Kharkov, and 6° at Kiev; below 20° in many parts of Russia, Austria, and south Germany, and below the freezing point over France and central Spain and the north of Italy. Subsequently rising above 50° in many parts of the United Kingdom, western and south-western Europe, highest of all being 63° at Corunna, 61° at San Fernando, 57° at Loughborough, and 56° at Cambridge.

Wind light or moderate from the Eastward (South-East to North-East) over France and Spain, and from the South-Eastward or Southward in the west of our Islands. Light from South-West or West over the eastern parts of Great Britain, Westerly or North-Westerly over Scandinavia, Denmark, and the Baltic, and strong to a gale in the west of Norway. Strong to a gale from the North-Eastward over Italy and the Adriatic and from the Northward in Tunis. No important change occurring during day.

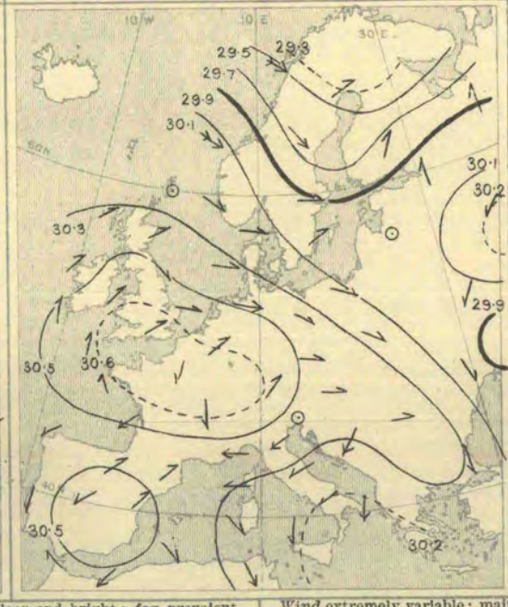
Barometer highest, 30·6 ins. and upwards in s[illegible]retching from England and the north of France across Germany and Austria to the south of Russia. Lowest, 29·4 ins. and less in a depression lying over Lapland and Finland, 29·8 ins. and less in another disturbance lying over the Mediterranean (to the southward of Sicily). New depression appearing to the northward of our Islands in the evening.

Monday, 16th February.

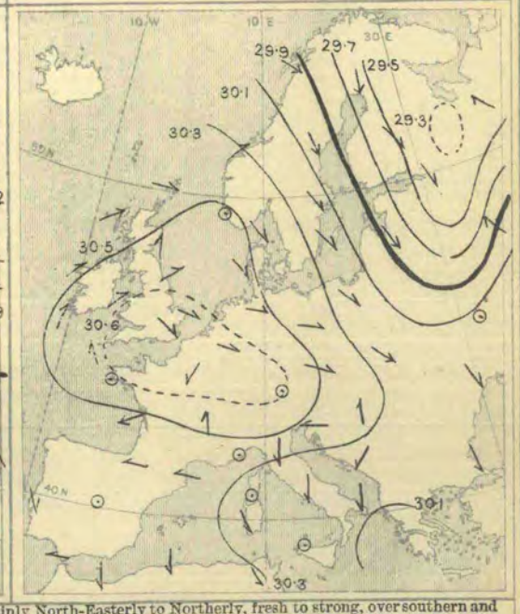
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fine over western Europe generally and in most places clear and bright; fog prevalent, however, over the eastern half of England, the Netherlands, and north-east of France, sky overcast in the west of Ireland and Hebrides. Conditions very variable over northern, eastern, and southern Europe, sky being clear in the south and locally at several eastern stations; dull elsewhere, with fog at St. Petersburg and Riga, snow at Haparanda, and also at Nicolaieff. Snow over Finland later, not much change elsewhere.

Temperature risen fast over Germany and Austria and very rapidly over southern Russia, fallen over Great Britain and the North Sea. Touching 50° at San Fernando and Valencia Island only, exceeding 40° on the Atlantic coasts of the British Islands, Spain, and Norway, and at several Mediterranean stations; much lower elsewhere. Lowest, −7° to +7° Fahr. over central Russia, 18° to 30° over Austria-Hungary, 23° to 25° over the south-east of France and south Germany, 30° to 35° over central England. Rising later to between 50° and 55° over Great Britain, the west and south of France, and Italy, to nearly 60° in Algeria, and to 60° and more over Spain and at Brindisi; frost on ground over Great Britain at night and sharp frost in shade over south of France.

Wind extremely variable; mainly North-Easterly to Northerly, fresh to strong, over southern and south-eastern Europe; Southerly in the western parts of the British Islands; North-Easterly, fresh to a gale, in Scandinavia; Southerly over Finland, Westerly over Denmark and Germany; nearly calm over central France and western Germany. Very little change reported later, but North-Easterly wind moderating over south-eastern Europe.

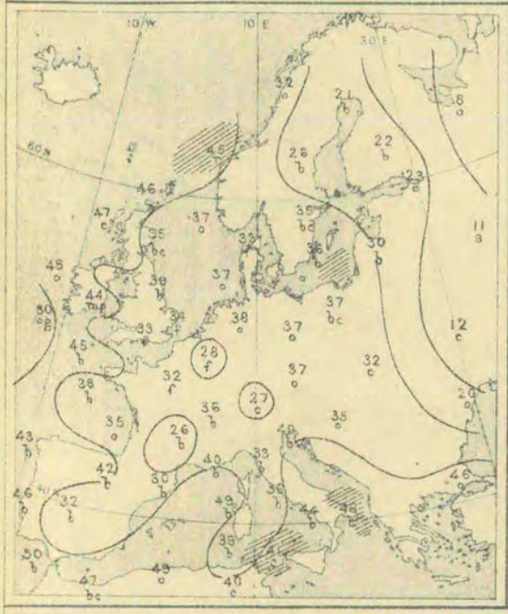
Barometer highest, (1) 30·6 ins. and more to 30·4 ins. in a complex anticyclone covering western and part of central Europe, and (2) 30·2 ins. to 30·0 ins. in another system over central Russia. Lowest, 29·6 ins. to 29·2 ins. over Lapland, the Gulf of Bothnia, and the northern parts of Scandinavia, 29·8 ins. and less in a depression over southern Russia, and 30·2 ins. and less in another shallow system over the south of Italy and the south-eastern part of the Mediterranean. The northern depression moving south-eastwards later, the others filling up.

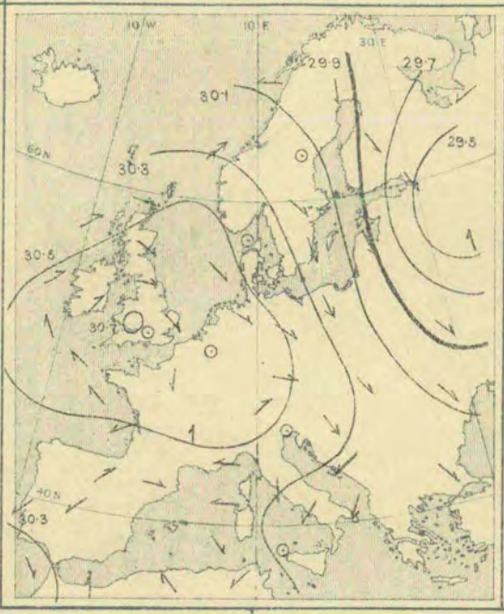
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

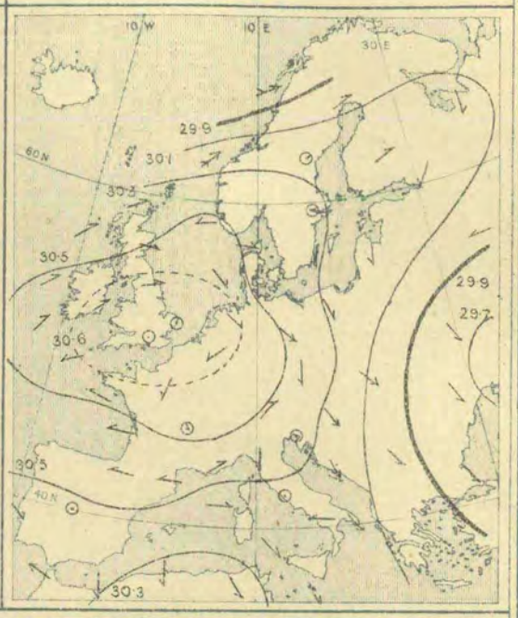
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 17th February.

Temperature and Weather.	Barometer and Wind.	
8 a.m.	8 a.m.	6 p.m.







Weather fine and bright over the Baltic and Sweden, as well as over Scotland, Brittany, Spain, the south of France, and the shores of the Mediterranean generally; very foggy over England, the Netherlands and their neighbourhood, as well as in the Kattegat and Sound; cloudy or overcast in Ireland and Norway, as well as over central Europe and southern Russia; snow falling at Kharkov. Dense fog in London all day, thick fogs at our south-eastern stations, and over neighbouring parts of the Continent; considerable rain over Lapland.

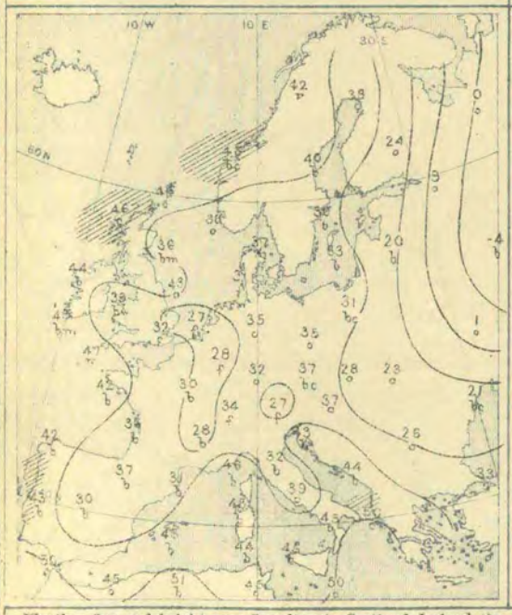
Temperature changing fitfully over northern and eastern Europe, not altering much elsewhere. Morning readings touching 50° at Valencia Island only; exceeding 40° in the north and west of the British Isles, on the Spanish coasts, and on the southern shores of the Mediterranean generally, as well as at Lésina and Constantinople, much lower elsewhere. Lowest, 8° Fahr. both at Archangel and Kharkov, to 11° at Moscow, 12° at Kiev, 14° at Nicolaieff, 26° at Turin and Lyons, 28° at Brussels, 29° at Oxford, 30° at Loughborough. Rising later to between 50° and 56° in many parts of our Islands, to 57° at Nice, to 64° at Lisbon, to 75° at Palermo. Maxima very variable in different parts of London.

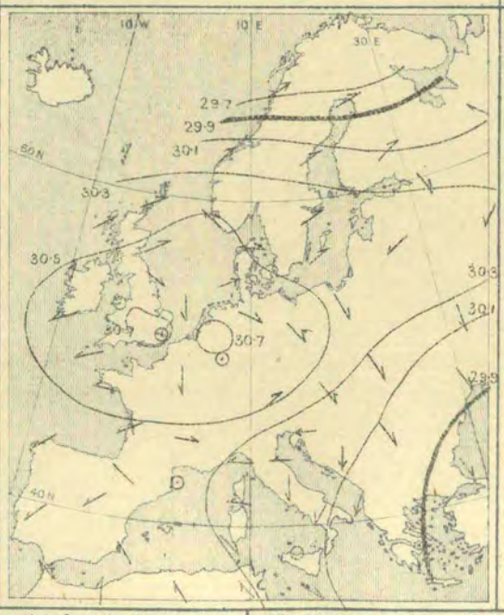
Wind cyclonic, Northerly, over the whole of the Baltic (a gale at Helsingfors), North-Westerly over Germany and Austria; anticyclonic over western Europe and nearly calm in most places, but Easterly over the Bay of Biscay, Southerly in Ireland, South-Westerly to Westerly in Scotland. Remaining Northerly over Italy during day, but decreasing greatly in strength. No important change reported elsewhere.

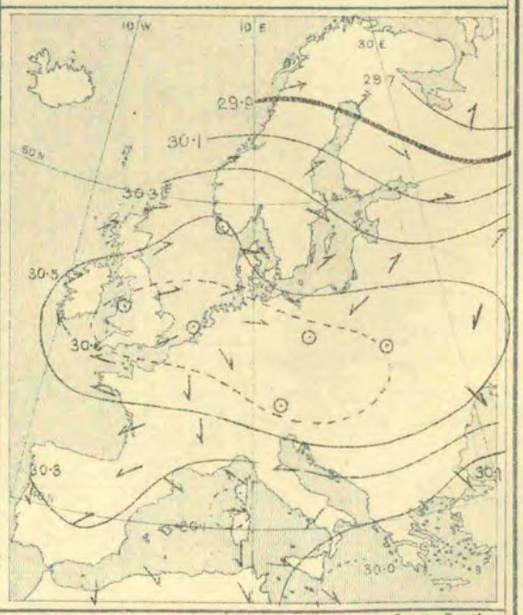
Barometer highest, 30·7 ins. to 30·4 ins. in a large anticyclone covering the whole of the British Islands, western and part of central Europe. Lowest, 29·5 ins. and less in a depression over the north-midland provinces of Russia, and rather below 30·2 ins. over Greece. Gradients slight generally, but steep over the Baltic Provinces and western Russia. Russian depression moving southwards quickly later and a new one beginning to approach Lapland from the Atlantic.

Wednesday, 18th February.

Temperature and Weather.	Barometer and Wind.	
8 a.m.	8 a.m.	6 p.m.







Weather fine and bright over Scandinavia, Scotland, Ireland, the west and south of France, the Iberian Peninsula, and at most of the Mediterranean stations; very foggy over England, the North Sea, the Netherlands, Germany, and the east of France, but especially in London, where fog was very dense and low; dull over Finland and northern Russia, variable over southern Russia; snow falling at Constantinople again. Fogs continuing with slight exceptions and becoming wet over the south-east of England, rain falling in the north of Norway, and small quantities of snow at Archangel and Moscow.

Temperature changing little and irregularly in most places, fallen decidedly over Russia. Morning readings touching 50° at Brindisi, Algiers, and San Fernando only, but exceeding 40° at most of the south European stations, as well as on the Atlantic coasts of the British Isles and Norway, much lower elsewhere. Lowest, (1) −4° Fahr. at Moscow, 0° at Archangel, +1° at Kiev, 9° at St. Petersburg, 12° at Nicolaieff and Kharkov, 20° at Riga, 27° at Munich, 28° at Lyons and Brussels, 30° at Paris; (2) 26° at Loughborough and Oxford, 29° at Cambridge, 32° in London. Rising to between 50° and 55° at our western stations later, remaining low over Great Britain, central Europe, and Russia; touching 70° at Nice and Perpignan, and exceeding 60° at Nevers and Florence.

Wind blowing a gale from South-South-West in the north-west of Norway, and a moderate South-Westerly to Westerly breeze over the Gulfs of Finland and Bothnia; Northerly to North-Westerly, moderate, over south-eastern Europe, Northerly to North-Easterly, strong, over the Adriatic. Light, variable, and anticyclonic over western Europe, as a whole, but chiefly Easterly over the Bay of Biscay, Southerly in Ireland, and South-Westerly in Scotland. Backing to the South-Eastward on our south-western coasts later, and Easterly wind setting in over the south-east of England.

Barometer highest, 30·7 ins. to 30·4 ins. in a large anticyclone covering the British Isles, North Sea, and the northern parts of France and Germany, with the Sound. Lowest, 29·7 ins. and less in a low-pressure area over Lapland and 29·9 ins. and less in another over the Black Sea. Gradients moderate over south-eastern Europe and in the extreme north, slight elsewhere. Falling slightly in our Islands, France, and Spain later, rising over central Europe and Russia.

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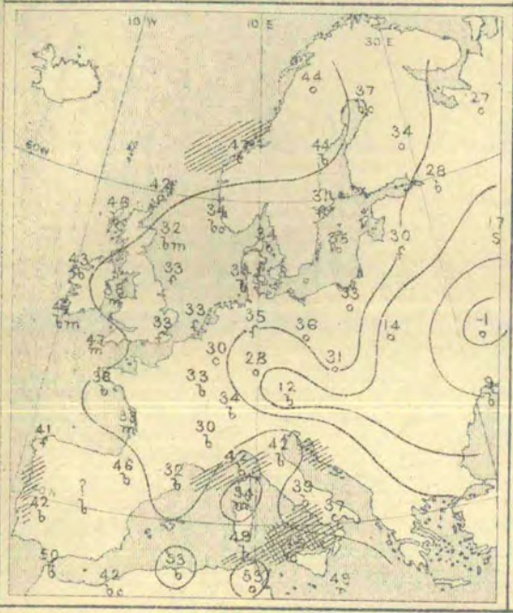
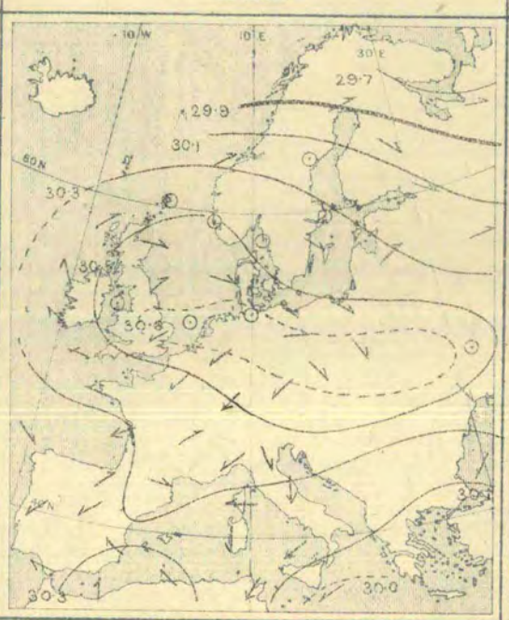
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 19th February.

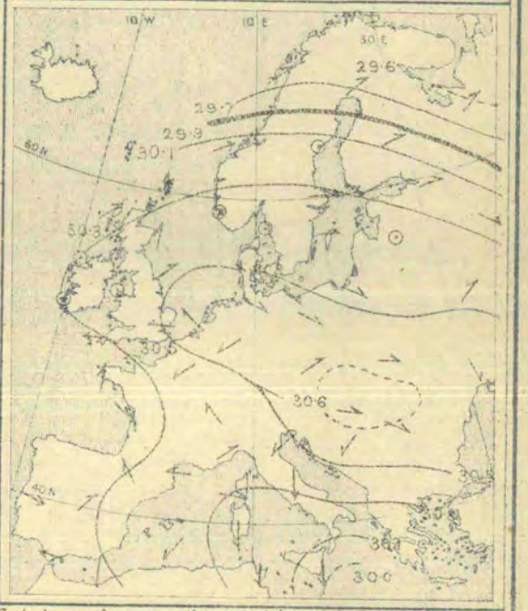
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather continuing very foggy over the north-western, north-eastern, south-eastern, and central parts of England, as well as on the Dutch coast and over the Baltic Provinces; hazy in the south-west and south of our Islands, dull over Russia, with snow at Moscow, cloudy over the south-eastern parts of the Mediterranean, with rain at Malta. Fog decreasing temporarily in London and the neighbourhood, but continuing in most other places. Low fog-like stratus driving rapidly from the Eastward across the sky over London at evening. Rain at Malta ceasing.

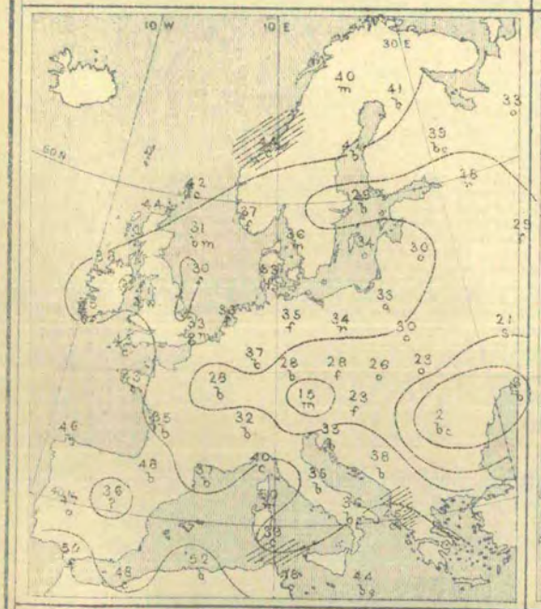
Temperature low generally, except on the Atlantic coasts. Morning readings exceeding 50° on Algerian coast and the south and east of Spain, and exceeding 40° at most of the Mediterranean stations, as well as on the most western coasts of the British Isles and in the west of Norway. Very low over southern Russia and central Europe. Lowest, −1° Fahr. at Kiev, +2° at Kharkov, 7° at Nicolaieff, 9° at Odessa, 12° at Munich, 14° at Warsaw, 17° at Moscow, and 27° at Archangel. Rising later to upwards of 60° over Portugal, Spain, and the extreme south of France, to more than 50° in Ireland and at Paris; not exceeding 37° in London all day.

Wind still South-Westerly to Westerly over the most northern countries and the Baltic and blowing hard in the north of Norway; becoming more generally Easterly over western Europe and the southern parts of England and Ireland than of late: North-Easterly over central France; Northerly, moderate to strong, over the eastern half of the Mediterranean; North-Westerly, light, over north Germany. (Austrian reports not received.) Freshening decidedly from the Eastward in the English Channel and south of Ireland during day; no other change of importance.

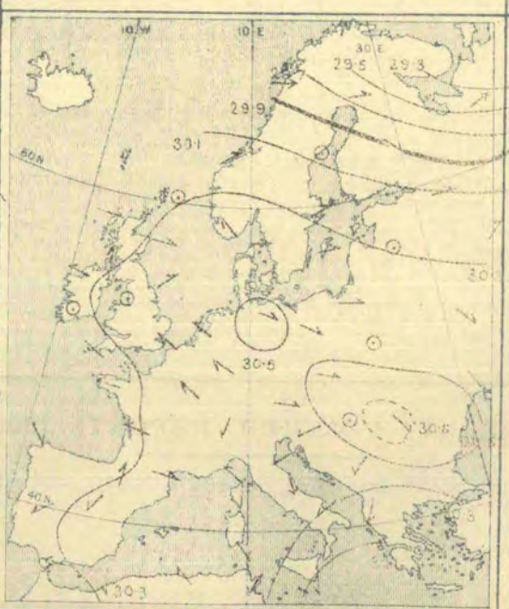
Barometer highest, 30·6 ins. and more in an elongated anticyclone stretching from the west of Ireland across the North Sea, France, and Germany to Poland, Hungary, and southern Russia. Lowest, 29·8 ins. and less over Lapland, the Kola Peninsula, and White Sea, 30·0 ins. and less in a depression lying to the southward of Malta, 30·3 ins. and less over the southern parts of the Bay of Biscay. Falling slowly all over western and northern Europe generally during day, rising over the eastern parts of the Mediterranean.

Friday, 20th February.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

Weather fine and bright over Sweden, Scotland, Ireland, Spain, France, south-eastern Europe, and at nearly all stations on the shores of the Mediterranean, dull elsewhere: very foggy over the north and east of England, the North Sea, Holland, the Kattegat, and Sound, as well as in Austria-Hungary; rain at Berlin and St. Petersburg, snow at Kiev. Temporary clearance of fog in some parts of England later, but no permanent change in other respects. Rain at Madeira.

Temperature continuing low for time of year except over northern Europe. Exceeding 50° at one or two Spanish and Algerian stations; exceeding 40° on the western, southern, and northern shores of the Mediterranean, on the Portuguese coast, and also in the extreme north-west of our Islands and Norway and the north of Sweden; much lower elsewhere. Lowest, (1) 2° Fahr. at Hermanstadt and Nicolaieff, 8° at Odessa, 14° at Buda-Pesth, 15° at Munich and Kharkov; below 30° over Russia and eastern Germany as a whole: (2) 27° at Münster, 28° at Wiesbaden and Paris; (3) 27° at York, 28° at Liverpool and Loughborough, 36° at Wick, Shields, and Oxford. Rising to 50° in Ireland, the west of Scotland, and central and southern France later, continuing low over Great Britain as a whole.

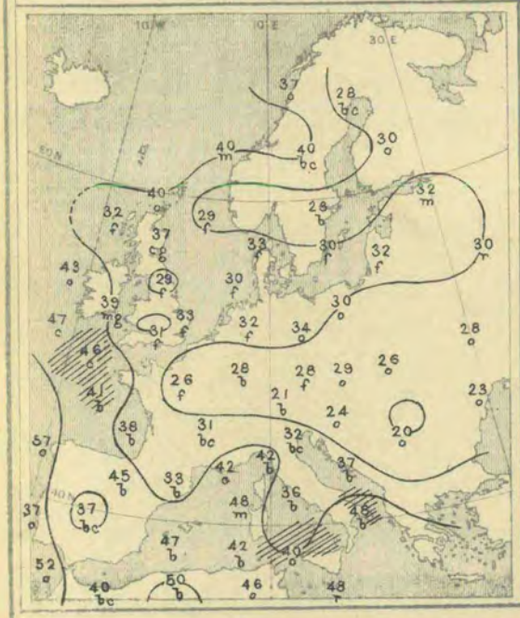
Wind strong to a gale from the Westward over extreme parts of northern Europe, light Westerly over the Baltic, strong from the Northward over Italy and the eastern shores of the Mediterranean, light Easterly over the Bay of Biscay, Channel, and southern parts of our Islands, calm in the north-east. Inclined to freshen a little from South-East in the west of our Islands later, and light South-Easterly breezes setting in on our north and north-east coasts; continuing very strong from Northward over eastern parts of the Mediterranean.

Barometer highest, 30·6 ins. and more over Hungary, and exceeding 30·3 ins. over all but the northern parts of Europe and over the Atlantic. Lowest, 29·4 ins. and less over the White Sea and Lapland, 30·1 ins. and less over the south-eastern parts of the Mediterranean, 29·2 ins. and less over the Atlantic to the westward of Ireland, and Spain. Gradients moderate over the northern countries, slight and variable elsewhere. Falling slowly throughout our Islands and western and northern Europe during the day, and also over Hungary.

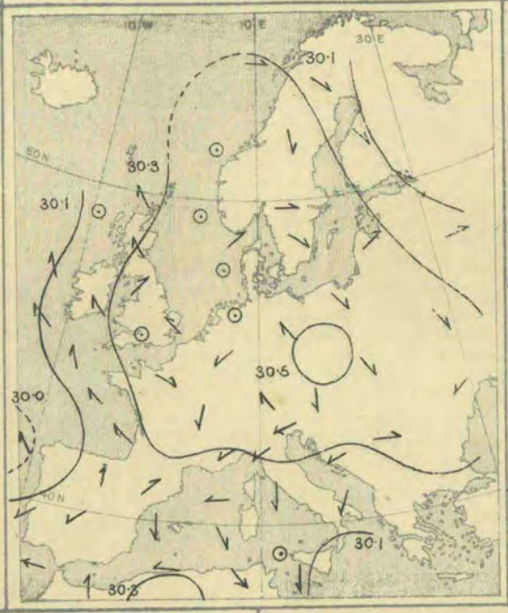
Judd&Colish 73&75, Farringdon Rd & Doctors Commons

Saturday, 21st February.

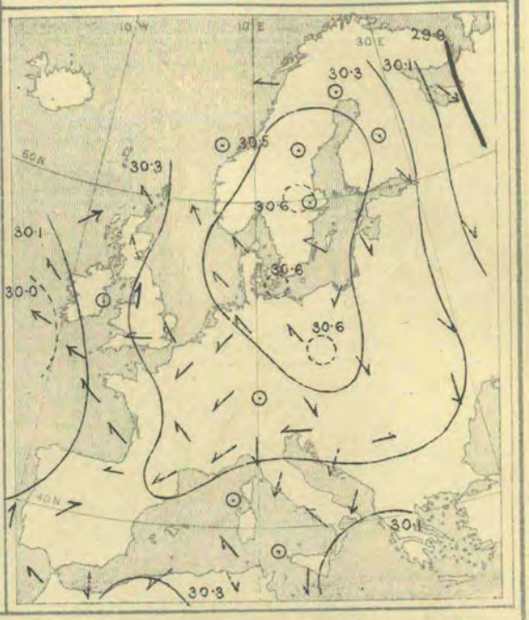
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright over the Mediterranean, Spain, France, the Bay of Biscay, and in Sweden; very foggy over the eastern half of the British Islands, the North Sea, Holland, Denmark, and some parts of the Baltic, cloudy or overcast in Ireland and in Russia; rainy at Malta. Rain later at most of the Irish stations (most at Roche's Point) and at St. Petersburg; fog continuing very prevalent in region mentioned above.

Temperature continuing low over western and central Europe and the inland parts of England, and falling over Lapland and Finland also; morning readings below freezing point at nearly all inland stations, and as low as 20° at Hermanstadt, 21° at Munich, 26° at Paris and Lemberg, 28° at Wiesbaden, 29° to 33° over the inland parts of England; exceeding 40° on our western and south-western coasts and exceeding 50° in the west and south of Spain and at Tunis. Rising later to upwards of 50° on our western coasts, to upwards of 60° over Spain and at Biarritz, and to nearly 60° in the south of France and Algeria.

Wind moderate or fresh from North-East in the south of France, East to South-East over the Bay of Biscay, South-East on our own western coasts, and very light from South in Scotland: North-Westerly over Finland, very light and variable elsewhere, calm in London. Becoming very strong from North-North-East over the southern half of Italy later; no important change elsewhere.

Barometer, 30·5 ins. and more to 30·3 ins. in a large anticyclone covering the greater part of central, northern, and western Europe. Lowest, about 30·0 ins. over the Atlantic, off Corunna, 30·1 ins. and less over the north of Russia, 30·2 ins. and less over the south-eastern part of the Mediterranean. Falling decidedly on our south-western coasts later, rising fast over the Baltic and Finland. Anticyclone moving North-Eastwards.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

At the commencement of this week pressure was uniformly high (30·7 ins. to 30·5 ins.) over western and central Europe and the south of Russia, low both over northern Europe and on the southern side of the Mediterranean. Rainy weather prevailed in both the latter regions, fine bright weather over the former, as well as over England and Ireland, towards which countries the anticyclone was stretching. The high-pressure system soon moved north-westwards and north-eastwards and spread so much (though decreasing a little in intensity) that after Tuesday low-pressure systems influenced only the most northern parts of Europe and the south-eastern parts of the Mediterranean. The result was that calms and very light breezes became general, except in the extreme west, north, and south-east, where the winds were frequently strong—from South-East and South in the first-named region, from the Westward in the north, and from the Northward over south-eastern Europe. The air at the same time became unusually foggy over England, the North Sea, the Netherlands, the east of France, and many parts of Germany and the Baltic. Temperature was, as a whole, low for the time of year, but towards the close of the week rose to between 55° and 60° over the north-western, western, and southern countries, and still higher on the coasts of Spain and south-west of France. At the close of the week the central area of the anticyclone covered Sweden, the Baltic, Denmark, and north Germany, low-pressure systems had begun to skirt our western coasts, moving in a north-easterly direction, and some rain was reported from the Irish stations generally, accompanied by strong, squally winds and moderate gales from the Southward. Thick fogs still held in the eastern and south-eastern portion of our Islands and their neighbourhood.

WEEKLY WEATHER REPORT, 1890.

The whole of this Report, including the Summaries, Appendices, Title-page, and Preface, has now been issued, and the volume may be bound.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 38.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	19·9	?	29	?	EASTBOURNE	36·3	?	52	?
OSWALDKIRK	24·9	?	37	?	TORQUAY	36·2	?	43	?
WORKSOP	15·1	− 0·4	22	0	ARLEY (County Cavan)	33·2	?	49	?
THURCASTON	26·4	+12·4	38	+18					

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, AND 21, DREWY STREET, GLASGOW; AND HODGES, FIGGIS, & CO., 104, GRAFTON STREET, DUBLIN.

VOL. VIII. No. 8]. *Third Series.* WEEK ENDING SATURDAY, 28TH FEBRUARY, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 44.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	64	26	52·5	37·5	45·0	7 above.	40	+35	13	−21	118	+67	228	− 38
	1. SCOTLAND, EAST -	64	19	52·3	32·2	42·3	4 above.	43	+32	27	− 8	115	+48	304	0
	2. ENGLAND, N.E. - -	61	20	48·9	30·2	39·6	0 (average)	19	+ 8	46	+16	84	+22	331	+ 57
	3. ENGLAND, EAST -	67	20	52·4	26·0	39·2	0 (average)	29	+16	63	+29	75	+ 7	439	+124
	4. MIDLAND COUNTIES	64	19	54·3	26·1	40·3	0 (average)	34	+19	65	+34	105	+23	393	+ 87
	5. ENGLAND, SOUTH -	66	22	51·7	30·1	40·9	0 (average)	27	+10	48	+23	80	−16	369	+132
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	60	23	51·0	35·2	43·2	3 above.	37	+28	19	− 6	117	+41	196	− 24
	7. ENGLAND, N.W. -	67	25	55·1	35·3	44·4	4 above.	45	+35	19	− 6	113	+43	250	+ 24
	8. ENGLAND, S.W. -	66	24	53·9	36·0	45·0	3 above.	46	+28	17	− 3	126*	0	254*	+ 83
	9. IRELAND, NORTH -	63	25	53·6	39·0	46·3	5 above.	43	+28	8	−15	151	+42	186	− 8
	10. IRELAND, SOUTH -	64	29	54·8	41·0	48·0	4 above.	46	+24	3	−14	192	+28	157	+ 11
	— CHANNEL ISLANDS -	62	34	54·5	40·0	47·3	3 above.	46	+23	6	0	168	− 2	116	+ 45

Rainfall.

	DISTRICTS. (See p. 44.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	3	8	2 less.	40	− 1	10·1	+ 0·8
	1. SCOTLAND, EAST -	0	—	6 less.	19	−11	1·8	− 3·3
	2. ENGLAND, N.E. - -	0	—	4 less.	18	−10	1·0	− 2·4
	3. ENGLAND, EAST -	0	—	4 less.	21	− 8	1·8	− 1·7
	4. MIDLAND COUNTIES-	0	—	5 less.	16	−13	1·9	− 2·4
	5. ENGLAND, SOUTH -	0	—	5 less.	19	− 9	2·6	− 1·9
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	1	3	7 less.	29	− 7	5·0	− 4·6
	7. ENGLAND, N.W. - -	1	1	5 less.	18	−14	2·3	− 3·1
	8. ENGLAND, S.W. - -	0	-	8 less.	18	−15	3·6	− 3·5
	9. IRELAND, NORTH -	2	1	5 less.	27	−10	2·3	− 3·5
	10. IRELAND, SOUTH -	1	less than ½.	7 less.	23	−12	2·7	− 4·5
	— CHANNEL ISLANDS -	0	—	6 less.	20	−17	2·3	− 3·5

Bright Sunshine.

	DISTRICTS. (See p. 44.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	17	+ 1	25	+ 3	79	+ 5	17	+ 1
	1. SCOTLAND, EAST -	27	0	37	+ 2	133	+ 21	28	+ 3
	2. ENGLAND, N.E. - -	34	+13	47	+17	132	+ 48	27	+ 9
	3. ENGLAND, EAST -	49	+30	67	+42	171	+ 63	34	+12
	4. MIDLAND COUNTIES-	43	+26	59	+34	170	+ 76	34	+15
	5. ENGLAND, SOUTH -	46	+23	62	+31	178	+ 84	35	+16
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	18	0	25	0	111	+ 27	23	+ 5
	7. ENGLAND, N.W. - -	43	+25	59	+35	153	+ 65	31	+13
	8. ENGLAND, S.W. - -	47	+26	66	+34	201*	+ 89	39	+17
	9. IRELAND, NORTH -	17	0	24	+ 2	136	+ 37	29	+ 8
	10. IRELAND, SOUTH -	22	+ 1	30	+ 1	157	+ 40	32	+ 8
	— CHANNEL ISLANDS -	66	+41	89	+55	264	+120	51	+23

General Remarks.

Weather has continued fine and generally mild over Ireland and Scotland, while over England fine, bright days have alternated with cold and foggy nights and early mornings. At some stations during the earlier days of the week the fog and cold continued throughout the day; in the metropolis and its neighbourhood this was especially the case.

Temperature has varied greatly and the diurnal range has been unusually large. The average of the week has exceeded the mean for the time of year in Ireland, Scotland, and all the western and north-western parts of England, and has about equalled the normal over eastern, southern, and central England. In "Scotland N." the excess has been as much as 7°. The highest of the maxima, which were recorded on the 24th in the north and on the 27th in most other localities, varied from 67° in "England E." and "N.W." (at Cambridge and Llandudno) and 66° in "England S." and "S.W." to 60° in "Scotland W." The lowest of the minima were registered on irregular dates, and ranged from 19° in "Scotland E." and the "Midland Counties" and 20° over eastern and north-eastern England to 29° in "Ireland S." and 34° in the "Channel Islands."

Rainfall has again been entirely absent in almost all parts of the Kingdom; in the extreme north and north-west of Scotland, however, some rather heavy falls occurred both at the beginning and end of the week.

Bright Sunshine has again been very abundant generally, but it has varied considerably in different localities, and in some places has been nearly absent. The percentage of the possible duration varied from 24 in "Ireland N." and 25 in the north and west of Scotland to 62 in "England S.," 66 in "England S.W.," 67 in "England E.," and to 89 in the "Channel Islands." In London the percentage was only 18, while at Glasgow it was no more than 3.

Barometer and Wind.—The distribution of pressure over our Islands has continued anticyclonic. No depressions have appeared in our immediate neighbourhood, but towards the close of the week a large system, moving eastwards to Scandinavia, was causing the barometer to fall very generally. South-Westerly to Westerly winds have again prevailed in the west and north and variable airs or calms in the south and east.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 43 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	50	40	48·7	41·3	45·0	+ 6·5	24	2	4	0·78	+0·03	*	*	*	*
	Stornoway ⚓	55	30	50·9	37·4	44·2	+ 4·9	35	13	5	0·86	−0·07	19·7	+ 1·0	28	+ 3
	Wick ⚓	53	30	51·1	37·9	44·5	+ 6·1	35	11	1	0·05	−0·46	*	*	*	*
	Lairg ⚓	64	26	55·8	32·6	44·2	+ 7·0	55	26	1	0·20	−0·53	*	*	*	*
	Glencarron ⚓	64	33	56·2	37·9	47·1	+ 9·5	53	11	2	1·85	+0·37	*	*	*	*
	Fort Augustus ⚓	60	27	53·8	36·8	45·3	+ 6·5	45	15	3	0·32	−0·50	9·7	?	14	?
	Fort William ⚓	55	29	50·9	38·7	44·8	+ 5·2	33	9	2	1·35	−0·36	22·7	?	32	?
1. SCOTLAND, E.	Nairn ⚓	64	26	55·3	35·0	45·2	+ 6·3	52	20	1	0·08	−0·28	*	*	*	*
	Aberdeen ⚓	58	29	51·0	36·1	43·6	+ 4·6	36	17	0	—	−0·60	20·4	+ 0·6	29	+ 2
	Braemar ⚓	61	19	51·6	30·5	41·1	+ 5·3	27	47	0	—	−0 69	29·0 †	? †	41†	?†
	Ochtertyre ⚓	62	23	51·1	28·3	39·7	+ 1·8	25	54	0	0·01 ‡	−0·80	*	*	*	*
	Leith ⚓	56	26	50·4	29·6	40·0	— 0·4	24	49	0	—	−0·35	*	*	*	*
	Marchmont ⚓	61	29	54·3	33·9	44·1	+ 6·3	49	23	0	—	−0·59	39·5	?	55	?
2. ENGLAND, N.E.	Alnwick Castle ⚓	61	27	49·0	32·4	40·7	+ 1·9	20	39	0	—	−0·52	*	*	*	*
	Durham ⚓	57	26	50·3	29·3	39·8	+ 1·0	23	50	0	—	−0·41	32·4	+14·4	45	+19
	Shields ⚓	58	29	51·1	31·4	41·3	+ 1·4	25	44	0	—	−0·39	*	*	*	*
	Scarborough ⚓	55	26	47·2	31·4	39·3	− 0·7	15	41	1	0·10	−0·34	*	*	*	*
	York ⚓	56	20	50·4	25·3	37·9	− 1·9	24	65	1	0·07	−0·35	27·7	+11·3	38	+14
	Spurn Head ⚓	57	30	45·1	31·4	38·3	− 1·1	9	40	0	0·01 ‡	−0·31	*	*	*	*
3. ENGLAND, E.	Hillington ⚓	63	23	55·4	26·8	41·1	+ 1·5	38	63	0	0·02 ‡	−0·43	50·8	+31·7	70	+44
	Yarmouth ⚓	49	25	40·9	30·0	35·5	− 3·3	0	46	0	0·02 ‡	−0·43	*	*	*	*
	Geldeston ⚓	64	20	53·6	23·3	38·5	− 1·3	32	74	0	0·01 ‡	−0·38	48·9	+28·4	67	+38
	Cambridge ⚓	67	22	57·6	24·7	41·2	+ 1·2	44	72	0	—	−0·37	50·0	+30·5	70	+44
	Rothamsted ⚓	65	21	54·3	25·3	39·8	+ 0·4	34	67	0	0·02 ‡	−0·48	44·8	?	61	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	63	22	53·3	27·4	40·4	+ 0·4	37	54	0	0·01 ‡	−0·38	*	*	*	*
	Loughborough	64	20	57·3	23·3	40·3	0·0	43	76	0	—	−0·42	*	*	*	*
	Stamford (Ketton Hall)	63	19	53·4	21·7	37·6	− 3·1	32	79	0	0·02 ‡	?	*	*	*	*
	Cheadle ⚓	59	28	52·6	31·9	42·3	+ 3·7	45	28	0	—	−0·60	*	*	*	*
	Churchstoke ⚓	62	22	56·6	28·5	42·6	+ 3·0	61	38	0	—	−0·51	49·9	+31·9	68	+43
	Hereford ⚓	64	20	54·2	26·3	40·3	− 0·7	34	64	0	—	−0·48	*	*	*	*
	Cirencester	61	22	53·0	25·3	39·2	− 0·2	31	67	0	0·02 ‡	−0·57	43·7	+23·3	60	+33
	Oxford	64	23	54·3	24·4	39·4	− 1·1	34	71	0	—	−0·45	34·9	+16·5	48	+23
5. ENGLAND, S.	London	62	28	50·7	28·9	39·8	− 1·4	24	52	0	0·02 ‡	−0·38	13·2 †	+ 1·4†	18†	+ 2††
	Strathfield Turgiss ⚓	64	23	53·2	25·0	39·1	− 1·7	31	67	1	0·05	−0·42	*	*	*	*
	Dungeness	53	22	48 0	29·1	38·6	− 2·3	17	50	0	0·01 ‡	−0·44	*	*	*	*
	Hastings (St. Leonards)	56	30	50·3	34·6	42·5	+ 1·3	35	21	0	0·01 ‡	−0·47	57·7	+33·7	78	+47
	Southampton	66	27	55·4	29·7	42·6	+ 0·7	56	34	0	—	−0·58	53·0	+32·1	72	+44
	Hurst Castle	55	30	49·3	32·9	41·1	− 0·5	20	37	0	0·02 ‡	−0·50	*	*	*	*
	Stowell ⚓	62	26	54·7	30·5	42·6	+ 2·6	53	32	0	0·01 ‡	?	50·5 †	? †	69†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart)	60	32	53·7	39·6	46·7	+ 6·0	43	7	2	0·63	−0·89	*	*	*	*
	Glasgow	56	29	49·7	35·4	42·6	+ 2·8	32	18	1	0·11	−0·61	2·4	−12·4	3	−17
	Ardrossan	56	33	51·6	36·7	44·2	+ 3·3	38	15	1	0·20	−0·44	*	*	*	*
	Glenlee ⚓	54	23	50·3	30·6	40·5	+ 1·8	23	46	1	0·33	−0·60	*	*	*	*
	Douglas (Isle of Man)	55	29	49·9	33·6	41·8	+ 0·8	22	35	1	0·06	−0·70	32·8	+11·8	46	+18
7. ENGLAND, N.W.	Newton Reigny	63	25	57·3	30·9	44·1	+ 6·1	61	31	1	0·03	−0·57	45·4	+27·9	63	+40
	Stonyhurst	54	31	51·6	32·5	42·1	+ 2·5	41	27	1	0·20	−0·62	33·4	+15·2	46	+23
	Blackpool ⚓															
	Manchester	58	32	54·8	34·3	44·6	+ 5·1	51	22	1	0·13	−0·42	*	*	*	*
	Liverpool Obsy. (Bidston)	56	30	53·7	33·4	43·6	+ 2·6	47	24	0	—	−0·41	*	*	*	*
	Llandudno ⚓	67	36	58·0	39·7	43·9	+ 1·7	23	6	0	—	−0·50	49·2	+30·4	67	+41
	Holyhead	59	37	54·9	41·0	48·0	+ 5·6	46	3	0	—	−0·60	*	*	*	*
8. ENGLAND, S.W.	Llandovery	66	26	62·0	30·6	46·3	+ 4·5	78	32	0	—	−0·98	*	*	*	*
	Pembroke	50	38	48·9	39·3	44·1	+ 1·6	26	8	0	—	−0·62	50·3	+27·6	69	+38
	Arlington (N. Devon)	60	33	56·0	36·3	46·2	+ 5·6	53	16	1	0·03	−0·97	*	*	*	*
	Cullompton ⚓	62	24	55·4	27·2	41·3	− 0·2	38	61	0	0·02 ‡	−0·68	44·9	+24·9	61	+34
	Falmouth	50	40	49·0	42·1	45·6	+ 2·1	25	0	0	—	−0·88	38·6	+16·0	52	+22
	Plymouth	57	35	53·9	37·3	45·6	+ 2·2	45	13	0	—	−0·70	53·3	+30·3	72	+42
	Prawle Point	57	38	52·1	39·3	45·7	+ 3·2	37	8	0	0·01 ‡	−0·47	*	*	*	*
9. IRELAND, N.	Malin Head	59	59	53·0	41·0	47·0	+ 4·6	39	3	1	0·01	?	*	*	*	*
	Londonderry	59	34	55·7	40·5	48·1	+ 5·5	49	4	0	—	−0·65	*	*	*	*
	Mullaghmore	63	38	55·4	43·9	49·7	+ 6·9	54	0	1	0·12	−0·57	*	*	*	*
	Belmullet	61	38	53·6	43·9	48·8	+ 5·8	48	0	4	0·77	?	*	*	*	*
	Markree Castle	59	25	53·4	35·8	44·6	+ 3·5	44	17	1	0·02	−0·63	17·7	0·0	25	+ 1
	Brookeborough	5	26	53·3	35·5	44·4	+ 4·4	44	18	1	0·06	−0·64	*	*	*	*
	Armagh	59	27	53·4	36·7	45·1	+ 4·5	44	15	2	0·02	−0·52	18·4	+ 0·9	26	+ 2
	Donaghadee	55	31	51·7	38·7	45·2	+ 3·7	36	9	2	0·04	−0·55	*	*	*	*
	Edgeworthstown	58	25	53·0	34·7	43·9	+ 3·5	44	20	2	0·10	−0·58	*	*	*	*
10. IRELAND, S.	Dublin	62	34	55·8	39·1	47·5	+ 3·6	51	8	0	—	−0·52	28·6	+ 8·6	39	+11
	Parsonstown	59	31	55·3	39·9	47·6	+ 5·7	48	6	1	0·02	−0·53	19·3	− 0·8	26	− 2
	Kilkenny	61	29	55·9	38·7	47·3	+ 4·5	51	9	1	0·01	−0·60	*	*	*	*
	Waterford	55	30	53·1	40·2	46·7	+ 2·8	40	5	1	0·02	−0·79	*	*	*	*
	Roche's Point	54	37	51·9	44·0	48·0	+ 3·8	42	0	0	—	−1·01	*	*	*	*
	Valencia	58	37	54·9	44·1	49·5	+ 4·3	53	0	2	0·07	−1·05	18·8	− 2·8	26	− 4
	Killarney	64	30	57·1	41·6	49·4	+ 5·0	53	1	2	0·02	?	*	*	*	*
	Foynes	60	34	54·6	40·7	47·7	+ 4·3	45	4	1	0·07	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	53	43	52·0	44·0	48·0	+ 2·1	42	0	0	—	−0·60	*	*	*	*
	Jersey	62	34	57·0	36·0	46·5	+ 2·9	57	17	0	—	−0·61	66·2	+40·8	89	+55

Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

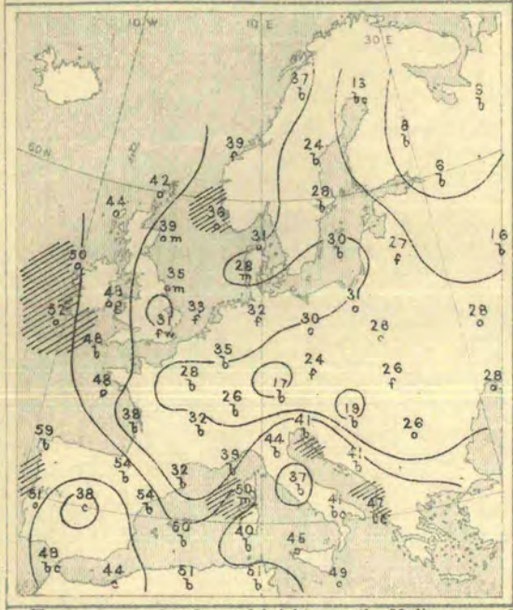
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page. ‡ Wet fog or mist.

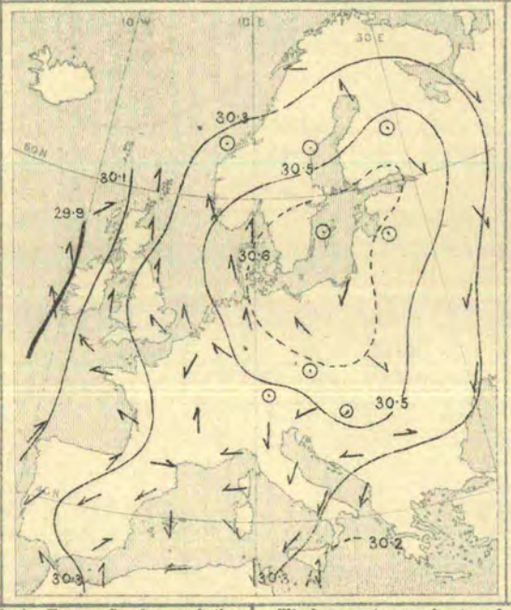
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 22nd February.

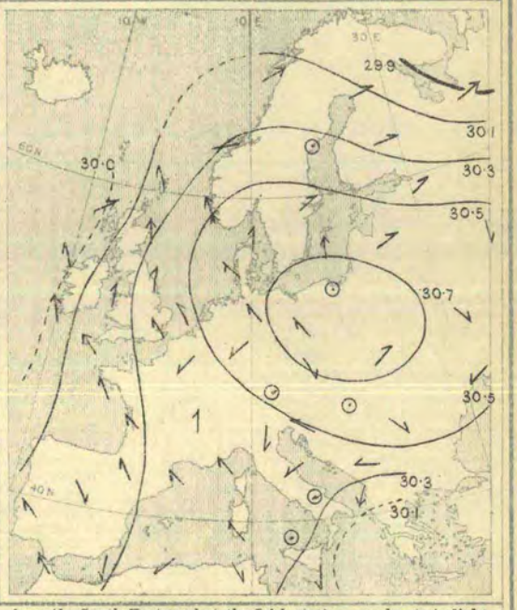
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 8 p.m.



Weather in morning fine and bright over the Mediterranean, Spain, France, Sweden, and the northern parts of the Baltic and Russia, dull over Germany, very foggy and damp over the Netherlands, the eastern half of England, and Channel; hazy in Wales and west of England, overcast in Ireland. A little rain later in Norway and the extreme west of our Islands; fog "lifting" in London during day, but becoming thick again towards night.

Temperature fallen rapidly over northern Europe and very low generally for the time of year. Morning readings touching 60° in the north of Spain, and exceeding 50° at a very few stations even on the southern and western shores of the Mediterranean, and in the extreme west of Ireland; exceeding 40° on our western coasts generally, much lower elsewhere. Lowest, (1) 6° at St. Petersburg, 8° at Kuopio, 9° at Archangel, 18° at Moscow; (2) 17° at Munich, 19° at Buda-Pesth, 28° at Paris, 28° to 31° over the inland parts of England. Rising quickly on our western coasts later, and touching 53° at Parsonstown, 56° at Mullaghmore, 59° at Holyhead; also 55° at Nice, 59° at Perpignan, 68° at Biarritz, 70° at Lisbon, and 75° at Corunna.

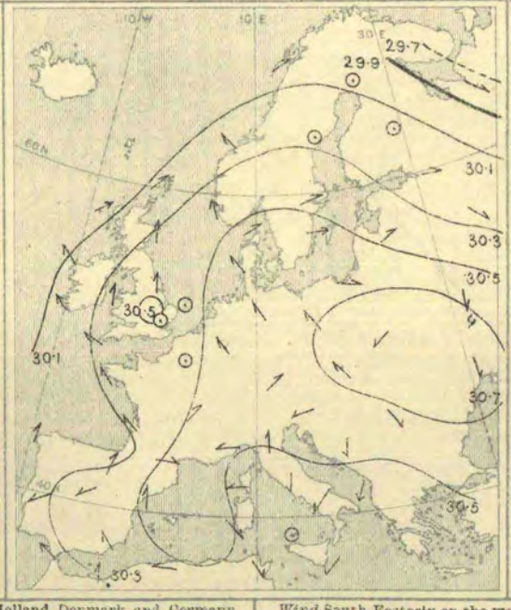
Wind strong to a moderate gale from the South-Eastward at the Irish stations, moderate to light Southerly to Easterly on the English coasts, in Denmark, and west of Norway; South-Easterly over the Bay of Biscay and north-west of Spain, Easterly in the south of France, extremely variable elsewhere, nearly calm in London. Southerly wind in west moderating later, no other change of importance.

Barometer highest, 30·6 ins. and more to 30·3 ins. in a large anticyclone covering nearly the whole of Europe, and having its centre over the Baltic. Lowest, 29·9 ins. and less over the Atlantic, off the north-west coasts of Ireland, and about 30·2 ins. over the eastern parts of the Mediterranean, the south-east of Russia, and the north of Lapland. Gradients slight, except in the extreme west. Rising later throughout the British Isles—most in the west; no important change occurring elsewhere.

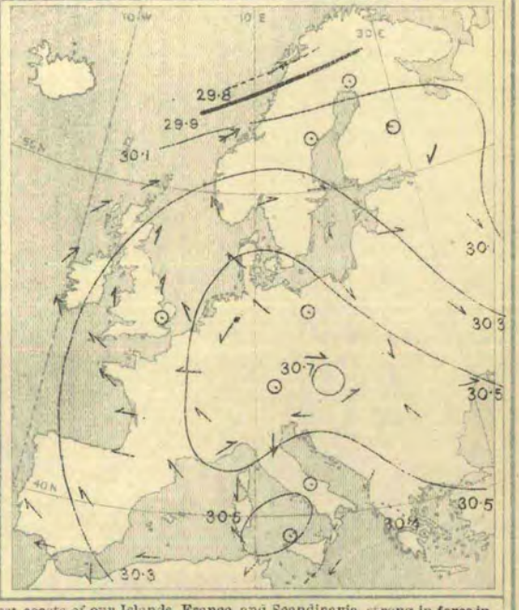
Monday, 23rd February.

Temperature and Weather. 8 a.m.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather foggy over the greater part of England, as well as in Holland, Denmark, and Germany. Fine in most other localities, but dull in the extreme west and north of our Islands, as well as in some parts of Russia and Scandinavia, with rain at Bodö and Stornoway. Fog clearing during day in some parts of England, but coming on again at night. Heavy rain falling in the Hebrides.

Temperature highest, 64° at Corunna, 54° at Barcelona and San Fernando, 53° at Sanguinaire, 52° at Nairn, Mullaghmore, and Valencia Island, and 51° at Biarritz, Oran, and Algiers; above 45° in the western and extreme northern parts of the United Kingdom generally. Lowest, 4° at Kharkov, 8° at Kiev, 11° at Nicolaieff, and 18° at Munich, Buda-Pesth, and Hermanstadt; below the freezing point in nearly all parts of northern, central, and eastern Europe, as well as over the inland parts of England. Subsequently rising to 50° or more in all but the extreme south-eastern parts of the United Kingdom and reaching 60° at Mullaghmore. Exceeding 60° in Spain and the south of France, the highest reading of all being 68° at Corunna and Lisbon.

Wind South-Easterly on the west coasts of our Islands, France, and Scandinavia, strong in force in Ireland and the west of Scotland. Calm or light Easterly over the south-east of England, variable over Germany and the east of France. Light or moderate from the Westward or North-Westward over Austria, Russia, and the Baltic, North-Easterly in Italy, Easterly in Spain, South-Easterly in Algeria. No important change occurring during day.

Barometer highest, 30·7 ins. and upwards over Austria, eastern Germany, and the south of Russia, 30·3 ins. and upwards in an anticyclone covering nearly the whole of Europe. Lowest, 29·8 ins. and less in a depression lying over northern Russia, 30·1 ins. and less in another lying to the north-westward of the British Islands. Slight fall taking place during day in Scandinavia, but gradual rise in our Islands and France; no material change elsewhere.

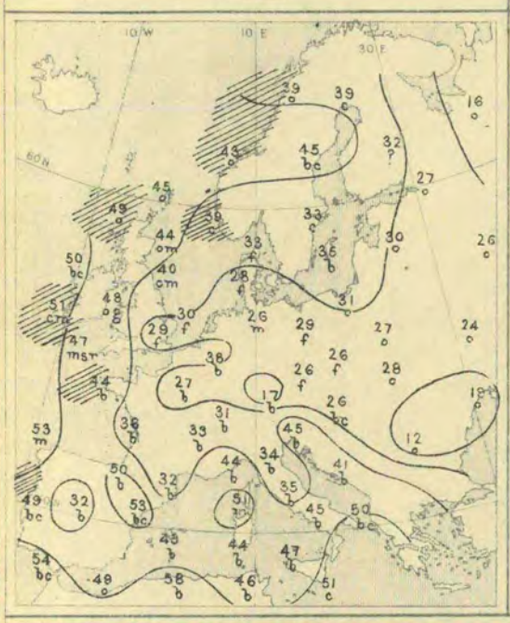
Judd & Co Lith. 75 & 75, Farringdon Rd & Doctors Commons

III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 24th February.

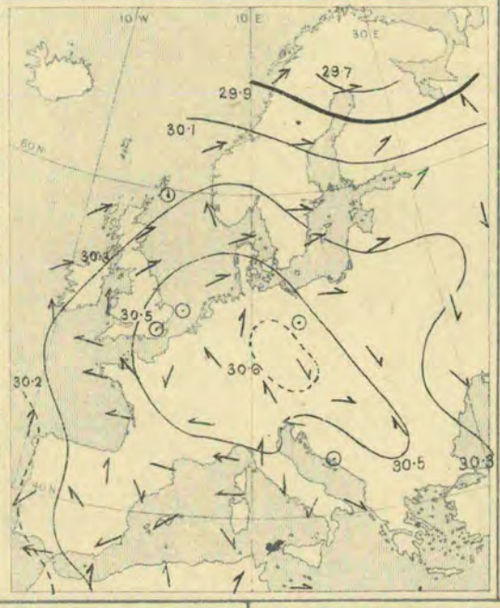
Temperature and Weather.

8 a.m.

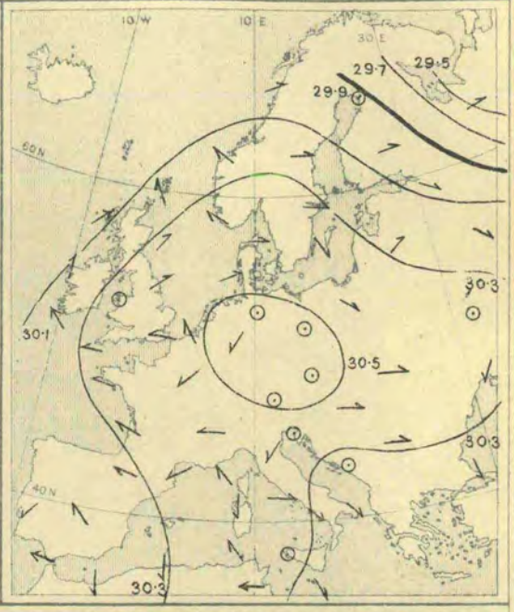


Barometer and Wind.

8 a.m.



6 p.m.



Weather still foggy over England, Holland, Denmark, and north Germany. Fine in nearly all other parts of western Europe, and also in the southern countries, but dull over Scandinavia, Russia, and the north of our Islands, with rain at Kuopio. Fog clearing in many parts of England during day, but coming on again towards night. No important change occurring elsewhere.

Temperature highest, (1) 60° at Oporto, 58° at Algiers, 54° at Bilbao and San Fernando; (2) 56° at Mullaghmore, 51° at Valencia Island, and 50° at Belmullet; above 45° in the west and extreme north of our Islands generally. Lowest, (1) 9° at Kharkov, 12° at Hermanstadt, 17° at Munich and Buda-Pesth, and 18° at Nicolaieff; (2) 23° at Oxford, 25° at Loughborough, and 26° at Cambridge, below the freezing point in all the more eastern and central parts of England. Rising during day to 55° or more at several of our own western and northern stations, and reaching 63° at Mullaghmore and 64° at Nairn. Highest readings observed during day on Continent, 70° at Lisbon and 66° at Corunna.

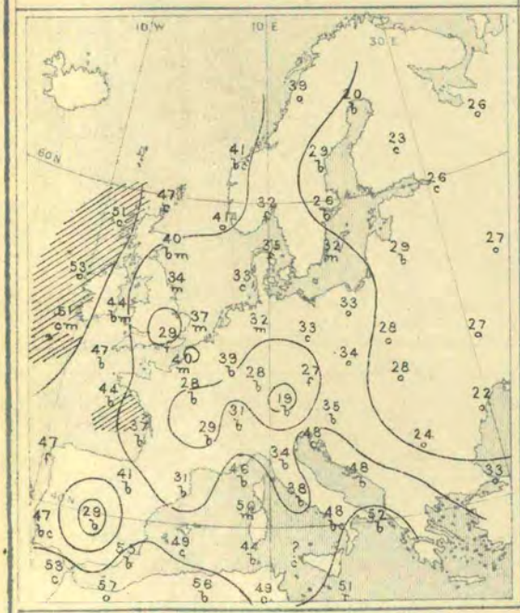
Wind light to fresh from the Southward or South-Westward in the west and north of our Islands; South-Westerly or Westerly over Scandinavia, Denmark, the Baltic, and northern Russia—strong in force in the west of Norway, light from the North-Westward over eastern Germany and the south of Russia. Light from the Eastward over France, Spain, and the south of England, variable in Italy, Southerly in Algeria. Subsequently backing to the South-Eastward in the west of Ireland and increasing to a strong breeze.

Barometer highest, 30·6 ins. and upwards over central Germany, 30·4 ins. and upwards in a large anticyclone lying over the whole of England and the greater part of central and southern Europe. Lowest, 29·8 ins. and less in a large depression lying over Lapland. New depression subsequently approaching our western coasts and barometer falling somewhat decidedly in the west of Ireland.

Wednesday, 25th February.

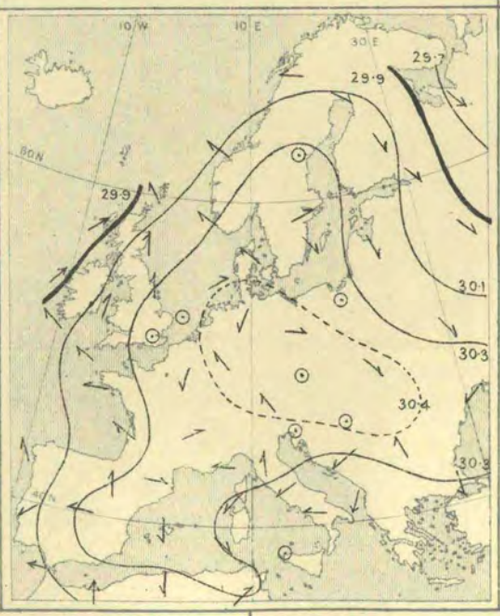
Temperature and Weather.

8 a.m.

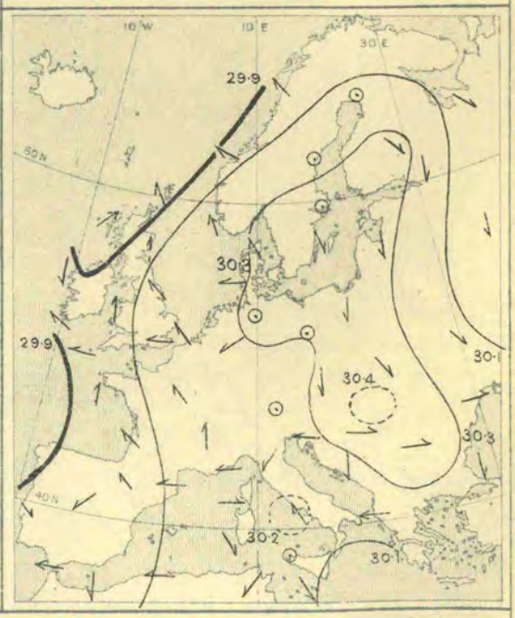


Barometer and Wind.

8 a.m.



6 p.m.



Weather still foggy over the greater part of England, as well as in the neighbourhood of the Skager Rack. Fine in nearly all other parts of Europe, but dull in Austria and Russia. Fog clearing over England later, but weather remaining somewhat hazy during greater part of day. No important change occurring on Continent.

Temperature highest, (1) 57° at Nemours, 56° at Oporto and Algiers, 55° at Bilbao, and 53° at San Fernando; (2) 53° at Belmullet and 51° at Stornoway and Valencia Island, above 45° in Ireland and the north of Scotland generally. Lowest, (1) 19° at Munich, 20° at Haparanda and Nicolaieff, 22° at Uleaborg, Kharkov, and Odessa; (2) 24° at Loughborough, 27° at Oxford, and 29° in London and at Cambridge; below the freezing point in nearly all parts of Russia and central Europe, as well as over the inland parts of England. Rapid rise taking place over England and France later, thermometer reaching 57° at Loughborough and 59° at Cambridge. Exceeding 60° in many parts of France and southern Europe, the highest readings of all being 63° at Rochefort and 66° at Clermont and Limoges.

Wind South-Easterly or Southerly over the greater part of western Europe; strong in force in the extreme west of our Islands, but light or moderate elsewhere. Light from the North-Westward over Russia and eastern Germany, North-Easterly over Spain and Italy, Southerly in Algeria. Calm or light and variable over Austria and the greater part of Germany. No important change occurring during day, excepting in the west of Ireland, where wind moderated.

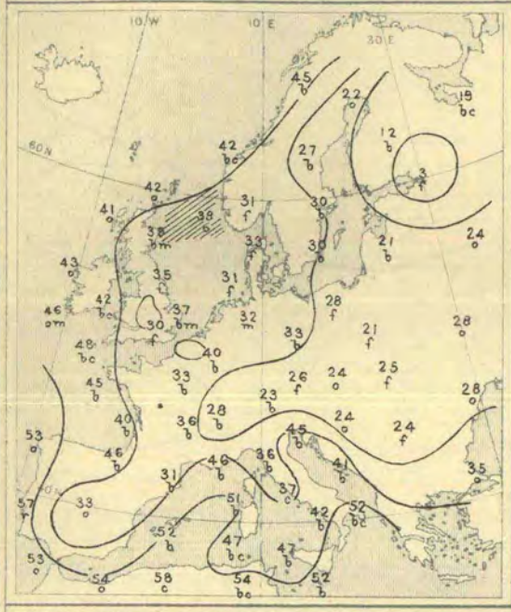
Barometer highest, 30·4 ins. and upwards over Germany, Switzerland, and Austria, 30·3 ins. and upwards in a large anticyclone covering England and the greater part of the Continent. Lowest, 29·7 ins. and less in a depression lying over western Russia, 29·9 ins. and less in another lying to the westward and north-westward of the United Kingdom. Latter system subsequently travelling away in a north-easterly direction and barometer rising at some of our western stations.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons

III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 26th February.

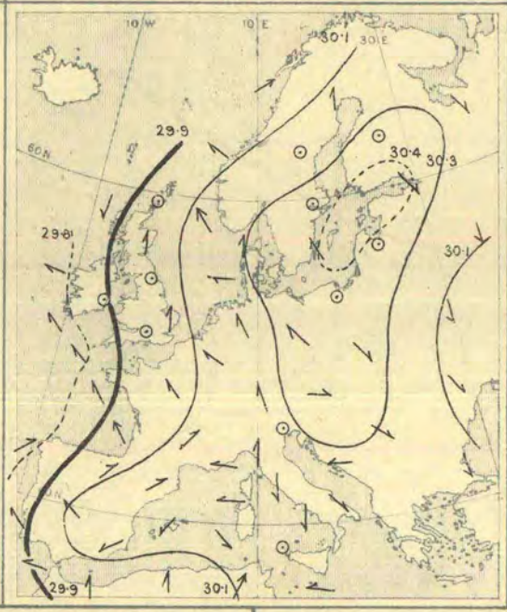
Temperature and Weather. 8 a.m.



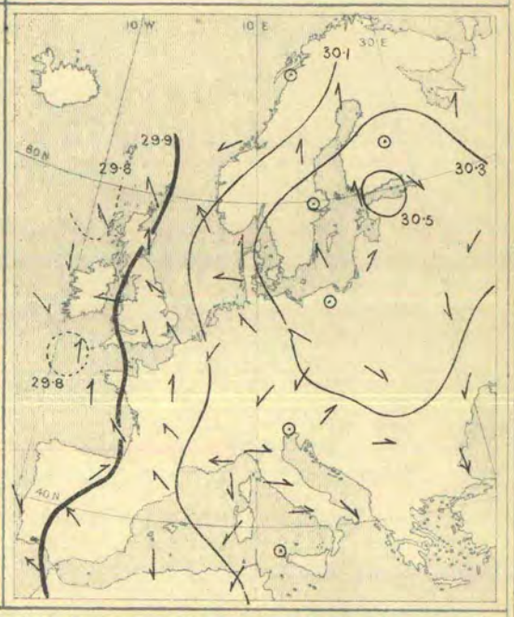
Weather still foggy at several of the English stations, as well as in Denmark, Poland, and Austria. Fine in nearly all other parts of Europe, but dull in the extreme west and north of our Islands, as well as over Algeria and the Spanish Peninsula, with rain at Lisbon. Fog dispersing over England later and weather clearing also on our extreme western and northern coasts. Snow falling in the south of Russia in evening.

Temperature highest, 58° at Algiers, 56° at Bilbao, 54° at Oran and La Calle, and 53° at Corunna, Oporto, and San Fernando; above 45° in the extreme south-west of our Islands. Lowest, (1) 3° at St. Petersburg, 12° at Kuopio, 14° at Helsingfors, and 19° at Archangel; (2) 21° at Loughborough and 23° at York and Oxford, below the freezing point over all the more northern, eastern, and central parts of Europe, as well as over the inland parts of Great Britain. Rapid rise taking place over England and France during day, thermometer exceeding 60° in several places and reaching 70° at Biarritz. Remaining below 60° at most of the Italian stations.

Barometer and Wind. 8 a.m.



6 p.m.

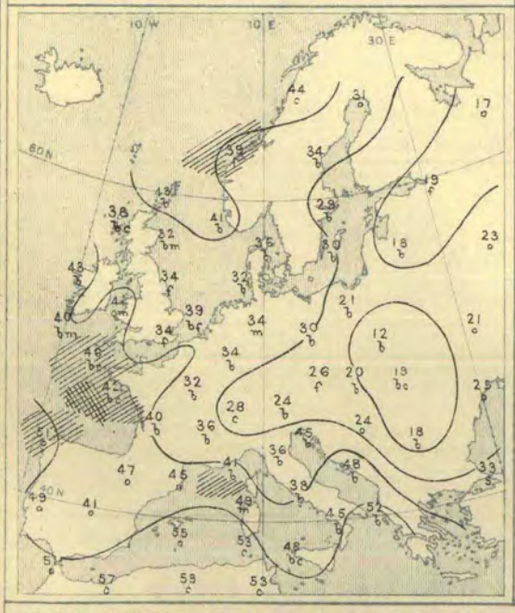


Wind light or moderate from the South-Eastward over the greater part of western Europe, as well as in Spain and Algeria. Calm or light and variable over Sweden, Germany, and the Baltic, light from the Northward or North-Westward over Russia, Austria, and Italy. Light Northerly breezes appearing later in the extreme west of our Islands; no important change elsewhere.

Barometer highest, 30·4 ins. and upwards over the Gulf of Finland and the northern parts of the Baltic, 30·0 ins. and upwards in a large anticyclone covering the greater part of the Continent and the eastern parts of England. Lowest, 29·8 ins. and less in an irregularly-shaped area lying to the westward and south-westward of our Islands and the north-west of Spain, 29·9 ins. and less over the south of Russia. Rise taking place later on our western coasts and new high-pressure system beginning to appear off the west of Ireland.

Friday, 27th February.

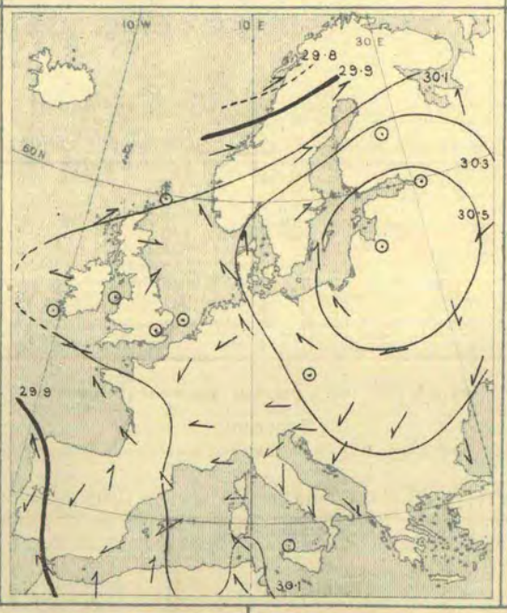
Temperature and Weather. 8 a.m.



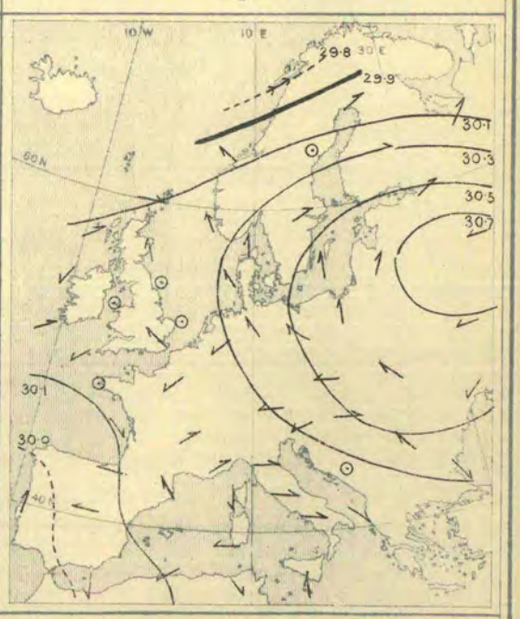
Weather still foggy or hazy in many parts of the United Kingdom, as well as at some of the German and Austrian stations, but fine over by far the greater part of the Continent. Dull over the Spanish Peninsula, as well as in Turkey and the south of Russia, with snow at Nicolaieff and Constantinople. Fog clearing later in many parts of the United Kingdom; no rain falling in any part of Europe, but snow reported at Kiev and Constantinople in evening.

Temperature highest, 58° at Algiers, 57° at Oran, 55° at Palma, and 53° at Cagliari, Nemours, and La Calle; above 40° on the western coasts of the United Kingdom. Lowest, 12° at Warsaw, 17° at Archangel, 18° at Riga and Hermanstadt, and 19° at St. Petersburg, Lemberg, and Kharkov; below the freezing point in most parts of northern, eastern, and central Europe, as well as over the central parts of Great Britain. Rapid rise occurring over England and France during day, thermometer rising above 60° in many places and reaching 67° at Cambridge. Daily maxima, below 60° at the Italian stations.

Barometer and Wind. 8 a.m.



6 p.m.



Wind light from the Eastward (North-East to South-East) over Ireland, England, France, Spain, and the greater part of central and eastern Europe. Light from the Southward over Denmark and the Baltic, South-Westerly or Westerly over Scandinavia and Scotland, Northerly in Italy, Southerly or South-Easterly in Algeria. No important change occurring during day, excepting in the north-west of Norway, where wind increased to a gale from the South-Westward.

Barometer highest, 30·5 ins. and upwards over western and central Russia and the eastern parts of the Baltic, but high, 30·1 ins. and upwards, in a large anticyclone embracing the whole of our Islands and the greater part of the Continent. Lowest, 29·8 ins. and less in a depression lying off the north-west of Norway, 29·9 ins. and less in a shallow area lying to the westward of the Iberian Peninsula. No important change occurring later.

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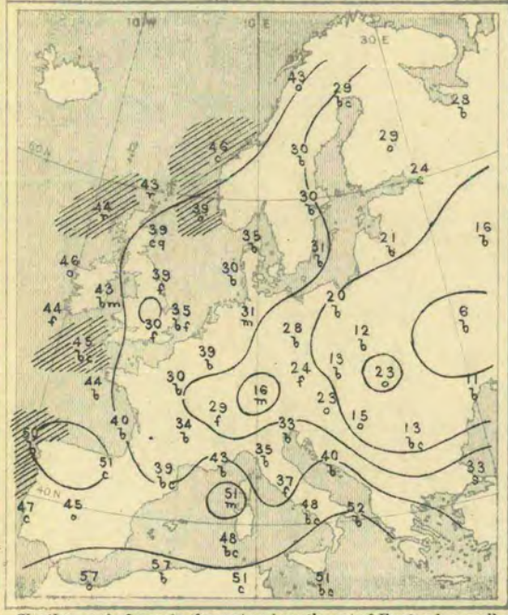
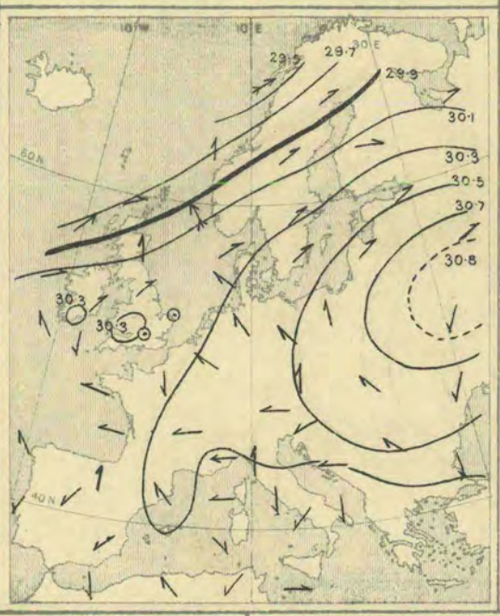
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 28th February.

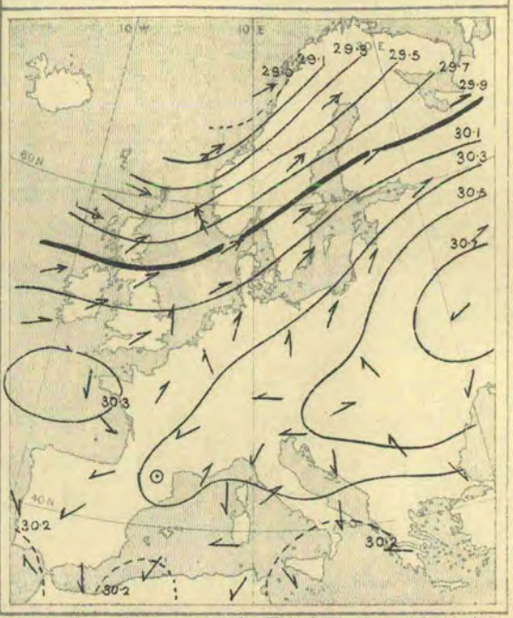
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather again foggy in the east and south-east of England, as well as at some of the Irish stations; dull on our extreme north and north-west coasts, with rain in the Shetlands and Hebrides. Fine in all other parts of the United Kingdom, and also over the entire Continent. Rain falling later in many parts of Ireland and Scotland, and also in the west of Norway—heavily in the Shetlands. Snow falling at Athens.

Temperature highest, 58° at Bilbao, 57° at Nemours and Algiers, 54° at Barcelona, and 52° at Brindisi; above 45° at most of the Mediterranean stations, and also in the extreme south-west of England. Lowest, 3° at Kharkov, 6° at Kiev, 8° at Nicolaieff, 11° at Odessa, and 12° at Warsaw; below 20° over Austria and the southern parts of Russia generally, and below the freezing point over nearly the whole of northern, eastern, and central Europe, as well as over the inland parts of England. Rising later to 60° or more in many parts of England, France, and southern Europe, the highest reading in our Islands being 65° at Cambridge; exceeding 70° over central Algeria.

Wind Southerly or South-Westerly over the northern parts of the United Kingdom, and also in Scandinavia and northern Russia, light or moderate in force generally, but strong to a gale in the west of Norway. Light from the South-Eastward in Denmark, Germany, and Austria, and from the Eastward or North-Eastward over the English Channel, France, and the greater part of southern Europe. Subsequently increasing to a strong breeze from the South-Westward or Westward in the extreme north and north-west of our Islands and also in the north of Sweden.

Barometer highest, 30·8 ins. and upwards over central Russia, 30·2 ins. and upwards in a large anticyclone covering the greater part of Europe. Lowest, 29·5 ins. and less in a depression lying off the north-west of Norway. Gradients rather steep and increasing over Scandinavia and the north of our Islands. Well-marked secondary disturbance skirting our extreme northern coasts later; no important change occurring elsewhere.

GENERAL NOTES.

During the whole of this period a large anticyclone has existed over all the more central and southern parts of Europe, its highest portion being found, as a rule, over Russia, Germany, or Austria. The prevailing winds have therefore been Easterly or North-Easterly in the southern countries, South-Easterly or Southerly in the west, and Westerly or South-Westerly in the north; and, although the weather has been mostly fair, thick fogs have been reported in many places, especially over England and the Netherlands. Over the more eastern parts of the United Kingdom the influence of the high-pressure system has been felt almost continuously; but in the west the anticyclonic conditions were interrupted on the 25th by a "V"-shaped depression which advanced from the Atlantic, and which occasioned strong Southerly winds and rain on our extreme west and north-west coasts. At the close of the week some large depressions were beginning to appear in the far north, and the barometer was giving way in all parts of north-western and northern Europe, with increasing winds from South-West and West over Scandinavia and the north of our Islands.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 44.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	17·4	?	24	?	EASTBOURNE	52·7	?	71	?
OSWALDKIRK	41·6	?	58	?	TORQUAY	46·0	?	62	?
WORKSOP	37·7	+20·7	52	+28	ARLEY (County Cavan)	15·7	?	22	?
THURCASTON	48·5	+32·7	66	+44					

WEEKLY WEATHER REPORT, 1891.

ERRATUM.

On pages 13 and 18 (Weekly Report No. 3) the long frost of 1890-1 is stated to have broken up on January 19th; for January 19th *read* January 20th.

REPORTS received too late for insertion in their proper places.

DATE OF REPORT.	NAMES OF STATIONS.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each Day.	Of Lowest each Day.	For whole of each Day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-Degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
January 31st, 1891	Llandudno	53	38	49·7	41·0	45·5	+4·0	29	3	5	0·38	−0·42	—	—	—	—
February 7th, "	Llandudno	—	—	—	—	—	—	—	—	—	—	—	10·5	−2·3	17	−4
" 14th "	Glencarron	48	28	44·1	33·9	39·0	+1·5	6	30	7	5·78	+3·96	*	*	*	*
" " "	Llandudno	49	34	46·7	38·4	42·6	+0·8	19	10	1	0·04	−0·51	—	—	—	—
" 21st "	Cullompton	55	25	49·3	27·7	38·5	−2·5	20	55	0	0·01‡	−0·72	35·6	+13·3	51	+26

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WEEKLY WEATHER REPORT.

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VOL. VIII. No. 9]. *Third Series.* WEEK ENDING SATURDAY, 7TH MARCH, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1856-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 50.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	59	13	44·9	32·4	38·5	0 (average)	8	+ 2	35	0	126	+69	263	− 40
	1. SCOTLAND, EAST	66	19	47·6	33·9	40·5	2 above.	16	+ 4	31	− 4	131	+53	335	− 11
	2. ENGLAND, N.E.	62	29	50·5	38·6	44·4	5 above.	31	+19	10	−20	115	+45	341	+ 27
	3. ENGLAND, EAST	64	28	53·8	38·9	46·2	6 above.	42	+27	9	−25	117	+40	448	+ 89
	4. MIDLAND COUNTIES	67	28	52·0	39·4	45·5	5 above.	35	+18	7	−24	140	+46	400	+ 53
	5. ENGLAND, SOUTH	62	29	51·6	39·0	45·1	4 above.	34	+16	8	−18	114	+ 5	377	+104
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	57	21	48·1	37·3	42·5	2 above.	23	+13	13	−13	140	+56	209	− 44
	7. ENGLAND, N.W.	57	32	49·2	39·6	44·3	4 above.	26	+15	7	−19	143*	+64	257	− 3
	8. ENGLAND, S.W.	62	32	50·5	41·8	46·0	4 above.	29	+10	1	−20	155	+14	255	+ 58
	9. IRELAND, NORTH	60	29	49·7	39·0	44·2	2 above.	28	+13	8	−15	179	+56	194	− 26
	10. IRELAND, SOUTH	61	28	51·9	41·3	46·5	3 above.	34	+12	2	−16	226	+43	159	− 3
	— CHANNEL ISLANDS	52	36	50·0	43·2	46·5	2 above.	32	+ 9	0	− 7	200	+13	116	+ 34

Rainfall.

	DISTRICTS. (See p. 50.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	7	22	13 more.	47	+ 2	12·3	+ 2·1
	1. SCOTLAND, EAST	4	4	1 less.	23	−11	2·2	− 3·5
	2. ENGLAND, N.E.	3	4	1 less.	21	−11	1·4	− 2·4
	3. ENGLAND, EAST	2	3	1 less.	23	−10	2·1	− 1·9
	4. MIDLAND COUNTIES	3	4	1 less.	19	−12	2·3	− 2·5
	5. ENGLAND, SOUTH	1	4	1 less.	20	−11	3·0	− 2·0
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	6	17	8 more.	35	− 4	6·7	− 3·8
	7. ENGLAND, N.W.	5	5	1 less.	23	−12	2·8	− 3·1
	8. ENGLAND, S.W.	3	4	3 less.	21	−15	3·9*	− 3·9
	9. IRELAND, NORTH	6	6	0 (average)	33	− 8	2·9	− 3·5
	10. IRELAND, SOUTH	3	2	6 less.	26	−13	2·9	− 5·0
	— CHANNEL ISLANDS	2	2	4 less.	22	−18	2·5	− 3·9

Bright Sunshine.

	DISTRICTS. (See p. 50.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	18	+ 5	25	+ 9	97	+ 2	18	0
	1. SCOTLAND, EAST	32	+28	43	+37	165	+ 34	30	+ 5
	2. ENGLAND, N.E.	26	+ 8	34	+10	158	+ 55	28	+ 9
	3. ENGLAND, EAST	21	0	28	0	192	+ 63	33	+10
	4. MIDLAND COUNTIES	19	0	24	0	189	+ 76	33	+13
	5. ENGLAND, SOUTH	21	0	27	0	199	+ 86	34	+14
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	14	− 6	19	− 7	125	+ 25	22	+ 4
	7. ENGLAND, N.W.	14	− 4	18	− 7	167	+ 59	30	+11
	8. ENGLAND, S.W.	17	− 7	22	−11	218	+ 84	37	+14
	9. IRELAND, NORTH	16	− 2	21	− 5	152	+ 40	27	+ 7
	10. IRELAND, SOUTH	17	− 5	22	−11	174	+ 39	30	+ 6
	— CHANNEL ISLANDS	12	−16	16	−20	276	+104	46	+17

General Remarks.

Weather continued fair and dry in most parts of England until towards the end of the week, when rain was experienced very generally. Over the greater part of Ireland and Scotland, however, the weather was unsettled and rain of frequent occurrence throughout the period. By the 7th snow showers were prevailing at all the northern and north-western stations.

Temperature has been above the mean in nearly all districts, the excess ranging from 2° in "Scotland E." and "W." and in the "Channel Islands," to 5° in "England N.E." and the "Midland Counties," and to 6° in "England E." In Scotland, where it was very high at the beginning of the period, it subsequently fell quickly, and finally became very low. The highest of the maxima, which were generally experienced either on the 1st or 2nd, varied from 67° in the "Midland Counties" and 66° in "Scotland E." to 52° in the "Channel Islands." The lowest of the minima, which were recorded on the 1st over England, on irregular dates in Ireland, and on the 7th at the Scotch stations, ranged from 13° in "Scotland N." 19° in "Scotland E.," and 21° in "Scotland W.," to 32° in "England N.W." and "S.W." and to 36° in the "Channel Islands."

Rainfall has been considerably more than the mean in the north and west of Scotland and about equal to it in "Ireland N.;" in all other districts it has again been less than the normal.

Bright Sunshine has been much less prevalent than it was during the previous week, but has still been fairly abundant over the north-eastern parts of the Kingdom. The percentage of the possible duration ranged from 43 in "Scotland E." and 34 in "England N.E." to 19 in "Scotland W.," 18 in "England N.W.," and 16 in the "Channel Islands."

Barometer and Wind.—During this period the high-pressure area recently prevailing over our Islands has moved away south-eastwards. No definite depressions have passed immediately over us, but a large and deep system skirted our extreme northern coasts on the 3rd, and caused severe gales in the north of Scotland and moderate to fresh gales at our northern stations generally. Towards the end of the period an ill-defined and shallow area of low-pressure moved southwards over our Islands, while the barometer began to rise in the north. With this change the fresh or strong Westerly winds which had been general subsided, and in the north a current of air from between North and North-West set in.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 49 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	50	24	42·0	33·1	37·4	− 0·9	0	32	7	0·75	+0·04	*	*	*	*
	Stornoway	54	22	44·1	32·3	38·0	− 1·3	6	34	7	1·90	+0·99	25·6	+ 5·9	35	+10
	Wick	59	15	45·6	31·1	38·1	− 0·5	10	39	7	1·44	+0·94	*	*	*	*
	Lairg Ⓢ	56	13	43·2	29·6	36·2	− 1·5	3	43	7	2·95	+2·24	*	*	*	*
	Glencarron Ⓢ	50	19	43·9	31·7	37·6	0·0	5	36	6	4·24	+2·81	*	*	*	*
	Fort Augustus Ⓢ	57	22	47·5	33·6	40·3	+ 1·5	15	32	6	1·67	+0·90	12·5	?	17	?
	Fort William Ⓢ	54	22	47·9	35·7	41·6	+ 1·9	17	25	6	2·60	+1·06	17·1	?	23	?
1. SCOTLAND, E.	Nairn	61	21	46·1	32·9	39·3	+ 0·2	11	33	6	0·71	+0·34	*	*	*	*
	Aberdeen	66	26	49·6	35·4	42·3	+ 3·1	30	18	3	0·21	−0·37	48·8	+ 27·2	65	+37
	Braemar Ⓢ	55	19	42·9	31·9	37·2	+ 1·4	3	35	5	0·90	+0·28	18·5 †	? †	25†	?†
	Ochtertyre Ⓢ	61	23	50·4	32·0	40·9	+ 2·8	24	39	3	0·30	−0·45	*	*	*	*
	Leith Ⓢ	56	28	48·9	36·3	42·4	+ 2·0	27	16	3	0·12	−0·22	*	*	*	*
	Marchmont Ⓢ	56	26	47·9	34·7	41·1	+ 3·2	17	28	4	0·40	−0·19	33·5	?	45	?
2. ENGLAND, N.E.	Alnwick Castle	53	29	48·1	37·6	42·7	+ 3·9	23	12	3	0·23	−0·29	*	*	*	*
	Durham	62	31	53·6	38·8	46·0	+ 7·1	41	9	2	0·56	+0·14	27·9	+ 7·9	37	+10
	Shields	59	30	50·7	37·6	44·0	+ 4·0	32	12	2	0·76	+0·36	*	*	*	*
	Scarborough Ⓜ	57	34	50·1	38·6	44·2	+ 4·0	30	10	3	0·37	−0·07	*	*	*	*
	York	57	30	51·6	38·3	44·8	+ 4·9	35	10	3	0·14	−0·28	26·4	+ 8·0	35	+10
	Spurn Head	53	37	48·9	40·6	44·6	+ 4·9	24	4	3	0·14	−0·16	*	*	*	*
3. ENGLAND, E.	Hillington Ⓜ	59	34	53·5	39·6	46·3	+ 6·3	40	7	2	0·21	−0·21	14·8	− 6·3	19	− 9
	Yarmouth	58	34	51·7	38·0	44·7	+ 5·8	36	11	2	0·29	−0·16	*	*	*	*
	Geldeston	62	34	54·8	39·7	47·0	+ 6·8	45	6	2	0·31	−0·07	25·2	+ 2·0	33	+ 3
	Cambridge	64	28	55·6	37·4	46·2	+ 5·8	49	13	3	0·30	−0·05	26·3	+ 4·3	34	+ 6
	Rothamsted	59	34	53·6	40·0	46·6	+ 6·9	41	6	2	0·57	+0·09	18·5	?	24	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	58	32	51·7	39·7	45·5	+ 5·4	34	6	4	0·55	+0·16	*	*	*	*
	Loughborough	67	28	53·6	38·6	45·9	+ 5·1	42	10	3	0·46	+0·06	*	*	*	*
	Stamford (Ketton Hall)	63	34	53·4	39·0	46·0	+ 5·1	41	8	3	0·22	?	*	*	*	*
	Cheadle Ⓜ	59	33	50·4	38·1	44·1	+ 5·3	31	11	6	0·74	+0·14	*	*	*	*
	Churchstoke Ⓜ	59	35	51·4	39·3	45·2	+ 5·6	34	8	5	0·23	−0·27	15·5	− 4·5	29	− 7
	Hereford Ⓜ	60	34	51·5	41·9	46·6	+ 5·3	33	0	2	0·22	−0·23	*	*	*	*
	Cirencester	57	33	51·0	39·6	45·1	+ 5·5	32	7	3	0·35	−0·19	18·9	− 3·3	25	− 3
	Oxford	59	29	52·7	38·6	45·4	+ 4·6	38	10	1	0·35	−0·07	20·7	− 0·1	27	0
5. ENGLAND, S.	London	58	30	53·9	38·6	46·0	+ 4·4	42	10	2	0·48	+0·09	19·6 †	+ 4·6†	25†	+ 6 †
	Strathfield Turgiss Ⓜ	58	29	53·8	38·8	46·1	+ 4·9	42	9	2	0·40	−0·03	*	*	*	*
	Dungeness	54	31	49·1	38·1	43·4	+ 2·4	26	11	1	0·11	−0·31	*	*	*	*
	Hastings (St. Leonards)	57	34	50·4	39·3	44·7	+ 3·0	30	8	1	0·09	−0·36	22·3	− 4·1	29	− 4
	Southampton	62	35	54·2	39·4	46·6	+ 4·4	43	7	1	0·52	−0·02	20·1	− 3·7	26	− 4
	Hurst Castle	50	30	48·3	39·6	43·8	+ 1·9	23	7	1	0·74	+0·26	*	*	*	*
	Stowell Ⓜ												†	†	†	†
6. SCOTLAND, W.	Laudale (Loch Sunart)	57	21	46·2	35·1	40·5	− 0·2	12	26	6	4·41	+2·91	*	*	*	*
	Glasgow	55	27	47·7	36·0	41·7	+ 1·9	16	24	6	0·93	+0·25	9·8	− 6·0	13	− 8
	Ardrossan	54	25	47·3	38·3	42·7	+ 1·9	20	10	6	0·84	+0·26	*	*	*	*
	Glenlee Ⓢ	55	31	49·3	37·2	43·1	+ 4·4	28	13	7	1·30	+0·90	*	*	*	*
	Douglas (Isle of Man)	55	31	49·8	39·8	44·7	+ 3·6	28	6	4	0·49	−0·21	18·8	− 4·4	25	− 5
7. ENGLAND, N.W.	Newton Reigny	57	32	49·6	37·1	43·2	+ 4·9	29	14	7	0·74	+0·19	15·8	− 3·5	21	− 3
	Stonyhurst	51	33	47·1	38·0	42·4	+ 2·7	20	11	5	0·73	−0·07	10·7	− 8·8	14	−11
	Blackpool Ⓜ	48	33	45·8	36·9	41·2	+ 0·8	11	19	3	0·10	−0·44	?	?	?	?
	Manchester	55	33	50·2	39·4	44·6	+ 4·8	29	7	5	0·79	+0·24	*	*	*	*
	Liverpool Obsy. (Bidston)	56	37	50·4	41·6	45·9	+ 4·7	29	1	4	0·15	−0·25	*	*	*	*
	Llandudno Ⓜ	55	36	50·9	41·9	46·3‡	+ 3·9‡	31‡	0	5	0·44	−0·04	14·5	− 4·8	19	− 6
	Holyhead	54	38	50·3	42·6	46·3	+ 3·8	30	0	4	0·40	−0·18	*	*	*	*
8. ENGLAND, S.W.	Llandovery	55	32	51·3	39·1	45·0	+ 3·2	33	8	6	0·41	−0·54	*	*	*	*
	Pembroke	49	40	47·9	43·1	45·4	+ 3·0	24	0	4	0·28	−0·31	14·0	−10·8	18	−15
	Arlington (N. Devon)	49	39	47·1	41·3	44·1	+ 3·4	18	2	4	0·66	−0·29	*	*	*	*
	Cullompton Ⓜ	62	35	52·6	41·1	46·7	+ 5·0	37	3	3	0·42	−0·25	14·5	− 7·8	19	−11
	Falmouth	56	40	51·4	43·2	47·2	+ 3·7	36	0	1	0·40	−0·42	19·8	− 5·2	26	− 7
	Plymouth	57	38	53·0	42·8	47·8	+ 4·2	41	0	1	0·49	−0·16	14·8	−10·5	19	−14
	Prawle Point	53	37	50·1	41·7	45·8	+ 3·2	28	1	3	0·31	−0·15	*	*	*	*
9. IRELAND, N.	Malin Head	51	32	45·6	39·0	42·2	− 0·1	14	8	7	0·59	?	*	*	*	*
	Londonderry	55	30	50·2	36·9	43·4	+ 0·8	31	14	7	1·14	+0·50	*	*	*	*
	Mullaghmore	54	35	48·4	41·3	44·8	+ 1·9	23	2	5	0·45	−0·20	*	*	*	*
	Belmullet	52	31	48·0	40·9	44·4	+ 0·7	21	3	6	0·67	?	*	*	*	*
	Markree Castle	57	30	50·5	39·1	44·6	+ 3·4	30	8	6	0·73	+0·11	14·4	− 5·1	19	− 7
	Brookeborough	58	29	50·5	37·5	43·8	+ 3·7	32	13	6	0·82	+0·15	*	*	*	*
	Armagh	59	31	51·7	38·1	44·7	+ 4·0	35	11	6	0·59	+0·07	17·0	− 1·6	22	− 3
	Donaghadee	60	32	51·3	38·7	44·8	+ 3·1	33	9	6	0·39	−0·13	*	*	*	*
	Edgeworthstown	57	31	51·0	39·4	45·0	+ 4·4	32	7	6	0·27	−0·41	*	*	*	*
10. IRELAND, S.	Dublin	58	35	52·3	41·0	46·5	+ 3·6	36	3	3	0·16	−0·34	20·8	− 1·2	27	− 2
	Parsonstown	54	35	50·9	39·9	45·2	+ 3·3	31	6	3	0·21	−0·32	16·2	− 5·8	21	− 8
	Kilkenny	58	34	52·6	40·1	46·2	+ 3·4	37	5	3	0·10	−0·48	*	*	*	*
	Waterford	61	35	53·2	41·0	46·9	+ 3·1	39	3	3	0·10	−0·67	*	*	*	*
	Roche's Point	58	38	52·1	42·3	47·1	+ 2·7	36	0	1	0·01	−0·97	*	*	*	*
	Valencia	54	40	51·4	43·9	47·5	+ 2·2	39	0	4	0·41	−0·67	14·3	−10·7	19	−13
	Killarney	59	34	52·9	42·2	47·4	+ 3·1	38	0	4	0·26	?	*	*	*	*
	Foynes	56	28	50·1	39·9	44·9	+ 1·5	29	6	4	0·28	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	52	41	50·3	44·1	47·1	+ 1·2	36	0	1	0·35	−0·23	*	*	*	*
	Jersey	50	36	49·6	42·3	45·8	+ 1·9	27	0	2	0·03	−0·57	12·1	−16·3	16	−21

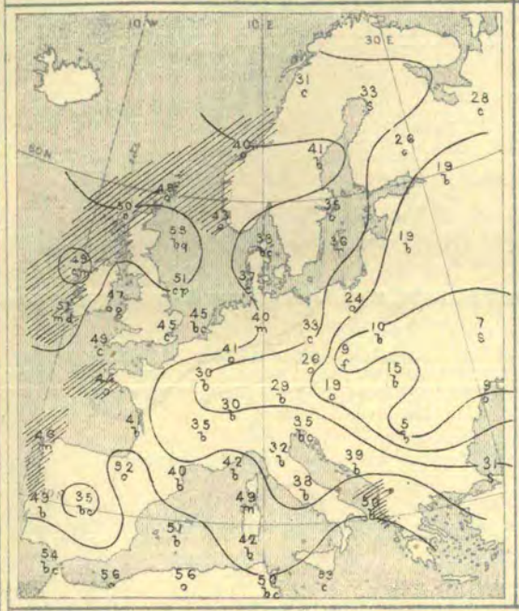
Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

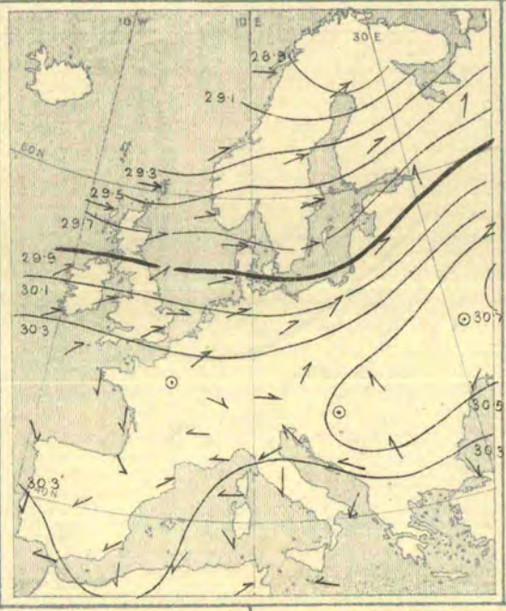
† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page. ‡ The corresponding values in last week's Report should read "48·9," "+6·7," "58."

Sunday, 1st March.

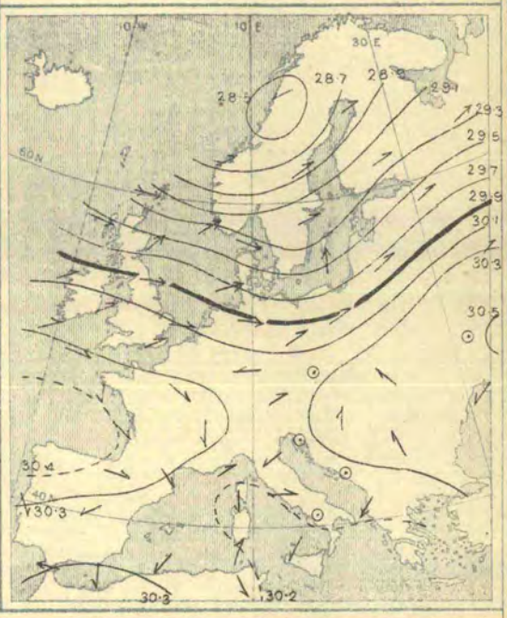
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fair or bright over the greater part of our Islands and the Continent, but dull at several of the Scandinavian and Russian stations, and in the west of Ireland; rainy at Bodö, snow falling at Uleaborg, Moscow, and Kiev. A little rain falling later in many parts of the United Kingdom and over Finland, large quantities in the west of Norway (0·8 in. at Christiansund).

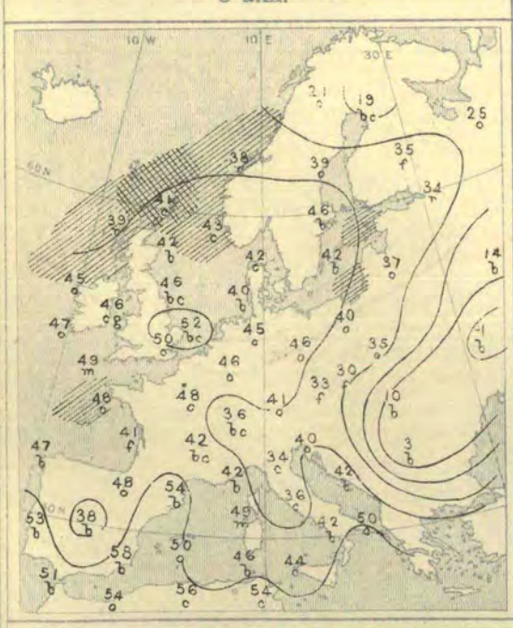
Temperature highest, (1) 58° at Aberdeen, 54° at Nairn, 52° at Leith, and 51° at several of the Irish stations; (2) 56° at Oran and Algiers, 55° at Nemours, 54° at Barcelona and San Fernando, and 53° at Malta. Lowest, −5° Fahr. at Kharkov, +5° at Hermanstadt, 7° at Kiev and Nicolaieff, 9° at Cracow and Odessa, and 10° at Buda Pesth; below 20° over Austria and the central and southern parts of Russia generally, and below the freezing point over central France and south Germany. Rising during day to 60° or more in several of the eastern and central parts of Great Britain to 67° at Loughborough and Cambridge, 66° at Aberdeen, and 70° on the shores of the Gulf of Lion

Wind Westerly or South-Westerly over the United Kingdom and all the more northern parts of the Continent, strong over our extreme north-west coasts and the Gulf of Bothnia, and blowing a gale over the Gulf of Finland. Light or moderate from between North and East over Spain, Italy, Algeria, and the south of Russia; variable over Austria, south Germany, and central France. Subsequently increasing to a gale from the Westward in the north of Scotland, the west of Norway, and the Skager Rack.

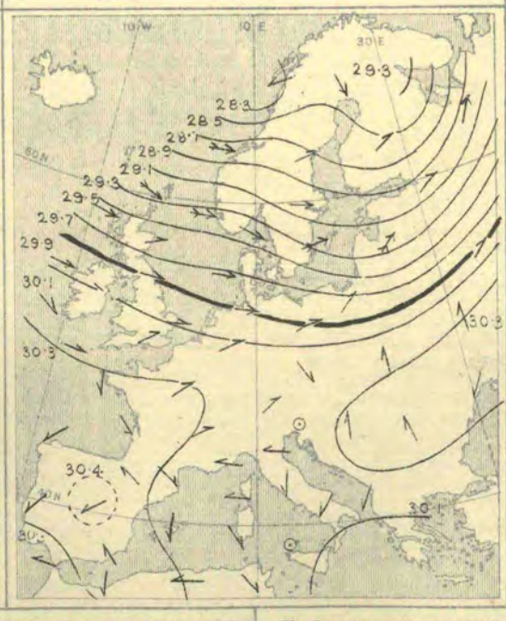
Barometer highest, 30·6 ins. and upwards in an anticyclone lying over the southern parts of central Russia, 30·4 ins. and upwards in another system lying over Spain and the Bay of Biscay, the two being united by a "col" stretching across France and the southern parts of central Europe. Lowest, 28·9 ins. and less in a large depression having its central portion over Lapland; secondary system lying to the northward of the Shetlands. Latter subsequently moving north-eastwards and barometer falling quickly in the north of our Islands and the west of Norway.

Monday, 2nd March.

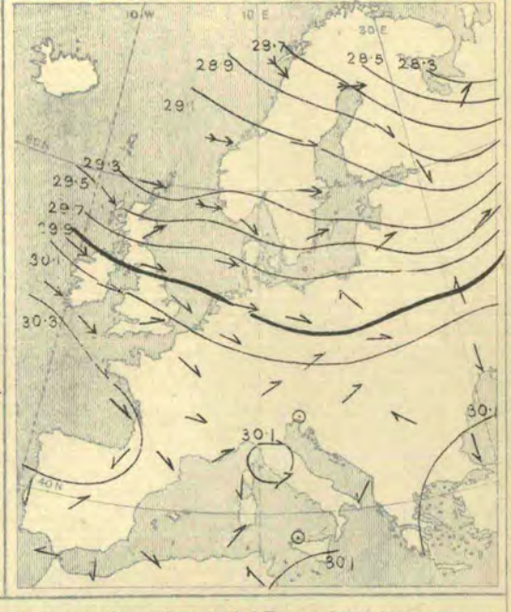
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright over south-western, southern, south-eastern, and eastern Europe, with the Mediterranean, as well as over Sweden and the north-eastern parts of the British Islands, cloudy and changeable elsewhere, rainy on our extreme north-west coasts and at Christiansund. Cold rain, hail, or sleet falling over the northern half of our Islands later; slight warm showers in the south of England and north of France; rain and snow in Austria-Hungary. Sky clearing over England subsequently.

Temperature falling in the north-west, rising over the Baltic, central Europe, and France. Readings exceeding 50° on the southern and western shores of the Mediterranean and over the eastern half of England, exceeding 40° on the Atlantic coasts of Europe and the British Islands generally, as well as over north Germany and Denmark, lower elsewhere. Lowest of all, −5° Fahr. at Kharkov, −1° at Kiev, +3° at Hermanstadt, 6° at Nicolaieff, 10° at Lemberg, 13° at Buda Pesth, 14° at Moscow, 19° at Haparanda, and 21° at Bodö; touching 60° at Cambridge, and 58° in London later, exceeding 65° in the south of France and north of Italy, and almost touching 70° at Madrid.

Wind very variable; chiefly Northerly over the southern half of Europe, the Mediterranean, and the Black Sea; Westerly (South-West to North-West) over all the northern countries, and strong to a gale in force at the majority of the stations; moderate over England and the southern half of Ireland, freshening in the latter districts later, but gale moderating in Scotland.

Barometer highest, 30·4 ins. and more to 30·8 ins. in an anticyclone over south-eastern Europe, and in another system over Spain, France, and the Bay of Biscay; exceeding 30·2 ins. in a "col" lying over Switzerland and south Germany. Lowest, 28·3 ins. and less over Lapland and the north of Finland, and rather below 29·3 ins. at Sumburgh Head, and in a zone stretching thence across the southern parts of Norway and Sweden to the Baltic Provinces and Russia. Falling unsteadily, but not rapidly, in our Islands later.

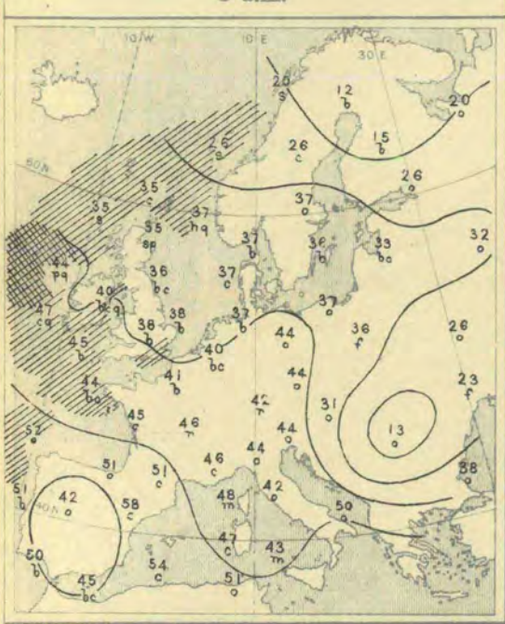
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 3rd March.

Temperature and Weather.

8 a.m.

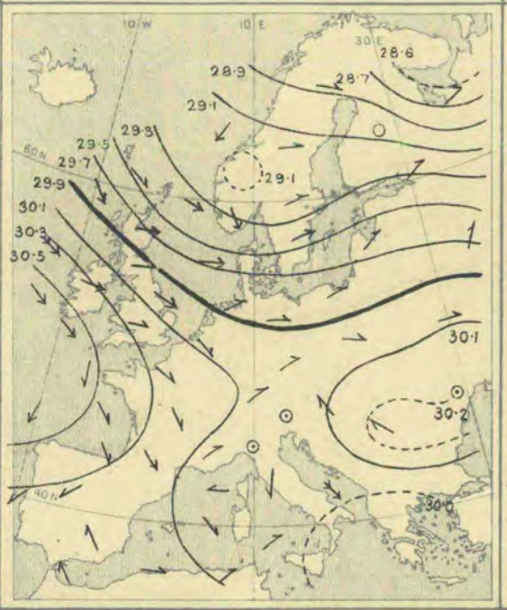


Weather in morning fine and bright at many stations over the Baltic, Scandinavia, and the British Islands, cloudy elsewhere; squally in the west and north, rainy over the southern parts of Germany and France; very changeable generally. Rain at times during day over all the northern and north-western parts of our Islands, Germany, the south of France, and north of Italy: heavy rain at Tunis. Appearance unsettled over England.

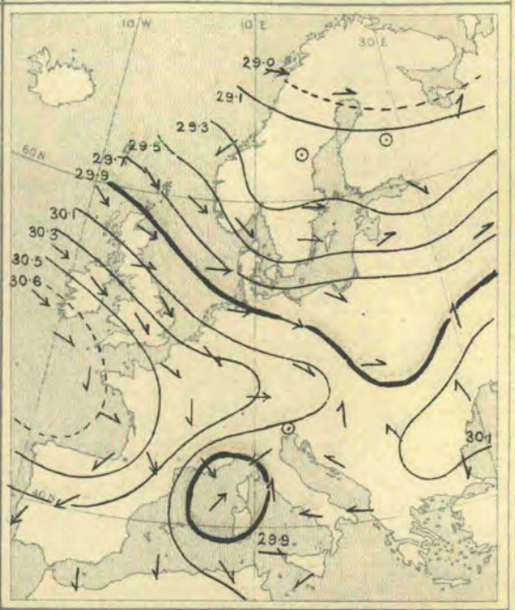
Temperature fallen fast over the north-western and northern countries, risen rapidly over south-eastern Europe and Italy. Morning readings exceeding 50° at some Mediterranean stations only below 40° over Scotland, central and eastern England, Denmark, and the Baltic. Lowest, (1) 12° to 15° over Lapland, 20° at Archangel, 26° at St. Petersburg; (2) 18° at Hermanstadt, 18° at Kharkov, 23° at Odessa, 25° at Buda Pesth. Rising to 50° and more at a few English and many French stations later, to 59° at Perpignan, 68° at Barcelona, and 70° at Lisbon.

Barometer and Wind.

8 a.m.



6 p.m.



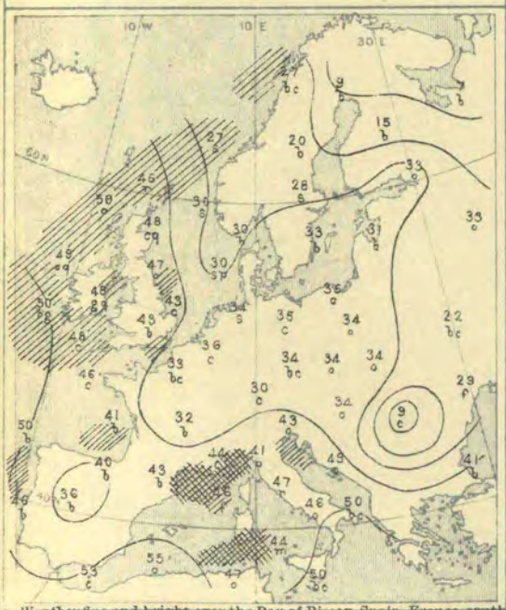
Wind North-Westerly to Westerly, strong to a gale, over Ireland, Irish Sea, Scotland and Norway (North-North-Easterly at Christiansund); Westerly, fresh to moderate, over England, the north of France, Germany, and the Baltic. Very variable over central and southern Europe; North-Easterly to Northerly over Spain. Moderating in Scotland and Ireland later, but strong to a gale over England and the North Sea. A North-Westerly gale setting in over the south of France also.

Barometer highest, 30·5 ins. and more to 30·3 ins. over the Bay of Biscay, north of Spain, west of France, and south-west of our Islands, 30·3 ins. and more to 30·1 ins. over south-eastern Europe and south of Russia. Lowest, 29·4 ins. to 28·6 ins. in a complex depression over Scandinavia and northern Russia. Gradients steep over Ireland, Scotland, Denmark, and south of Sweden. Rising over our Islands later—most in Scotland, falling over Finland, as the Scandinavian disturbances moved eastwards.

Wednesday, 4th March.

Temperature and Weather.

8 a.m.

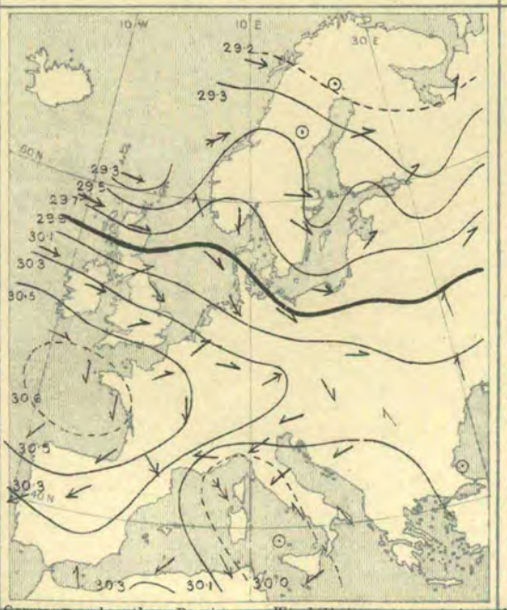


Weather fine and bright over the Bay of Biscay, Spain, France, south Germany, and southern Russia, also over Finland and the northern parts of Sweden; cloudy or overcast in most other places, and very unsettled over Norway, the North Sea, and the northern parts of the British Isles, as well as over Italy and the eastern half of the Mediterranean. Snow falling in the west of Norway, rain at Sumburgh Head, Malin Head, and Rome. Rain later at several of our northern stations, Germany, and some parts of Italy, snow in Norway and Russia.

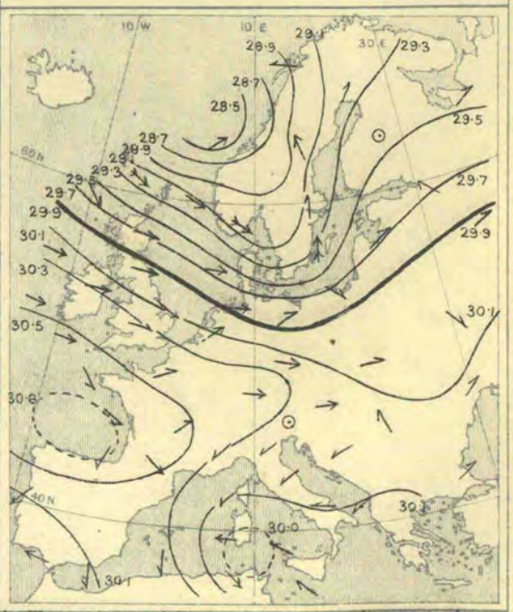
Temperature fallen considerably over southern and central Europe and on the shores of the Baltic, risen fast over our Islands, especially in the north. Touching 50° at Stornoway, Valencia Island, Corunna, and Malta, and ranging between 50° and 55° on the western side of the Mediterranean; exceeding 40° all over the British Islands, much lower elsewhere. Lowest, (1) 7° at Archangel, 13° at Uleaborg, 15° at Knopio, 21° at Helsingfors and Hangö; (2) 9° at Hermanstadt, 17° at Kharkov, 22° at Kiev. Rising to 58° in some parts of Scotland later and to 50° or more in many other parts of our Islands and in France; exceeding 60° in south of Italy, Spain, and western Algeria.

Barometer and Wind.

8 a.m.



6 p.m.



Wind (1) strong to a gale from the Westward or South-Westward over the northern parts of our Islands and in Norway, moderate to fresh from the North-Westward over the North Sea, and from West in Germany, light and variable over northern Russia; (2) strong to a gale from the Northward (North-East to North-West) over the Mediterranean and Spain, very light and variable over south-eastern Europe. Gale becoming severe at Scotch stations and in Norway later and wind blowing gustily over our southern districts also; wind moderating at the Mediterranean stations.

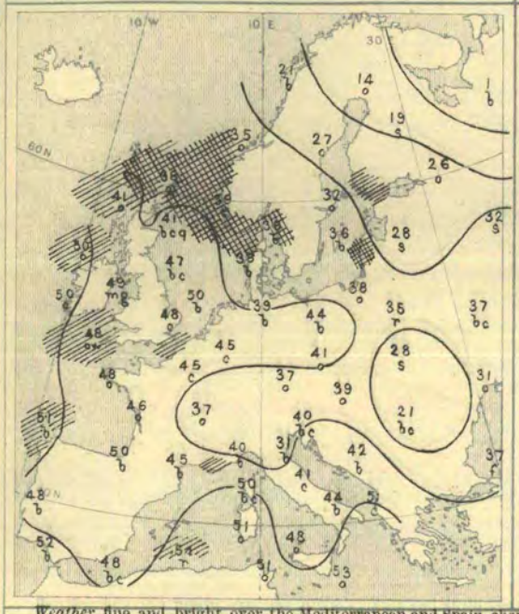
Barometer highest, 30·7 ins. to 30·3 ins. in an anticyclone covering Bay of Biscay, north of Spain, France, and south-western parts of the British Islands; exceeding 30·1 ins. in a "col" spreading east-south-eastwards across south Germany and Austria to the Black Sea. Lowest, 29·2 ins. and less over Lapland and the White Sea, 29·3 ins. and less in a deep depression over the Shetlands, 30·0 ins. and less in an elongated disturbance over Corsica, Sardinia, and Sicily. Northern depression becoming still deeper later and moving east-south-eastwards, that over Mediterranean filling up.

Judd & C° Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 5th March.

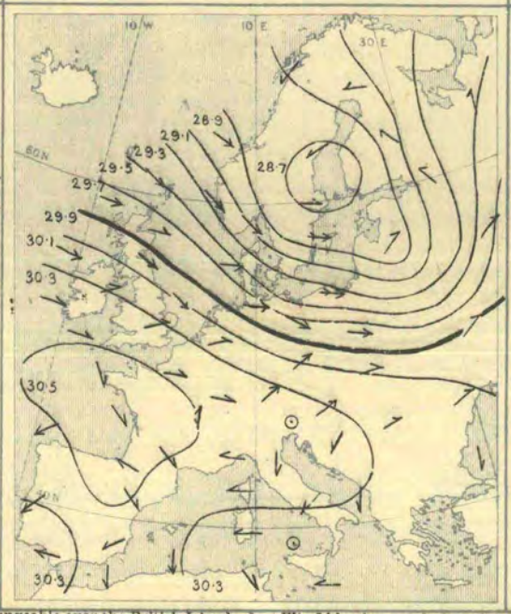
Temperature and Weather. 8 a.m.



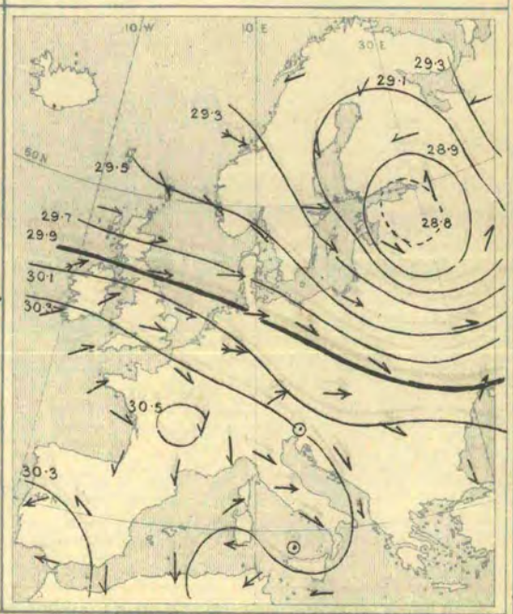
Weather fine and bright over the Mediterranean and Spain, changeable over the British Islands, France, and central Europe, rough and unsettled over northern Europe, the Baltic, and Russia. Snow falling at Kuopio, Moscow, and Lemberg, as well as at many of the Baltic stations, rain at Warsaw, Cracow, and Breslau, and on the north-western coasts of the British Islands, fog at Constantinople. Rain and sleet later in the north of Ireland, Scotland, Denmark, Russia, and some parts of Norway and Germany, and rain at Palermo; weather fair generally over England and France.

Temperature risen considerably on the Continent and over England, fallen decidedly in Scotland. Morning readings exceeding 50° on the southern side of the Mediterranean, in Portugal, and extreme west of Ireland, as well as at a few English stations; below 46° on eastern shores of North Sea and over Baltic. Lowest, (1) +1° Fahr. at Archangel, 14° at Haparanda, 19° at Kuopio, 26° over the Gulf of Finland, 28° at Riga; (2) 21° at Hermanstadt, 28° at Lemberg, 31° at Odessa, and also at Florence. Rising later to between 54° and 60° in many parts of England, France, and south of Italy, and to 64° at Lisbon.

Barometer and Wind. 8 a.m.



6 p.m.

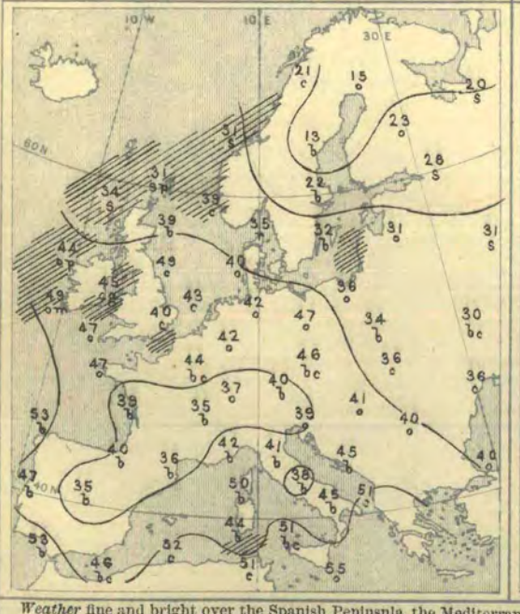


Wind blowing a gale from between West and North-West over many parts of the British Islands, North Sea, Scandinavia, the Baltic, and Germany, and from the Southward, in the Gulf of Bothnia. Fresh to strong from the same quarter or South-West over the southern parts of Ireland, England, the Netherlands, and Austria; nearly calm over the Bay of Biscay, west of France, and north of Italy; North-Easterly to Easterly over Spain, Northerly to North-Westerly over Algeria. Backing somewhat at our western stations later, and becoming still stronger in the north-west of Ireland.

Barometer highest, 30·5 ins. and more to 30·4 ins. in an anticyclone lying over the Bay of Biscay, Spain, France, and the south-west of our Islands, and ranging between 30·4 ins. and 30·1 ins. in a "ridge" stretching from the south-east of France across the whole of Italy, Austria, and south-eastern Europe. Lowest, 28·7 ins. and less in a deep depression lying over Sweden (centre between Stockholm and Hernösand) and about 29·7 ins. in a zone stretching from Caithness, across Holstein, to Poland, and thence in a north-easterly direction to central Russia. Falling somewhat over our Islands later.

Friday, 6th March.

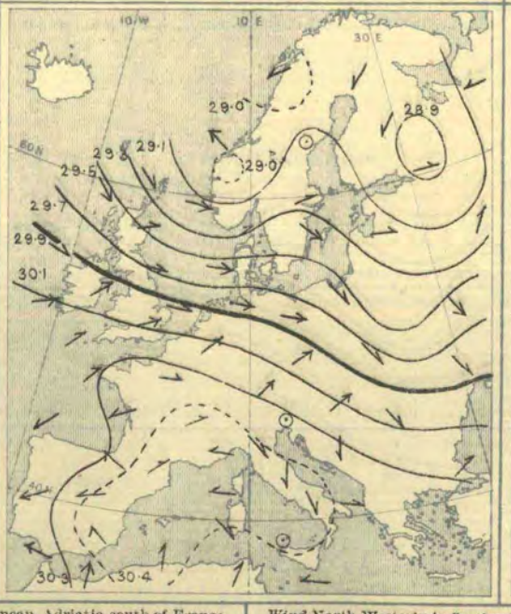
Temperature and Weather. 8 a.m.



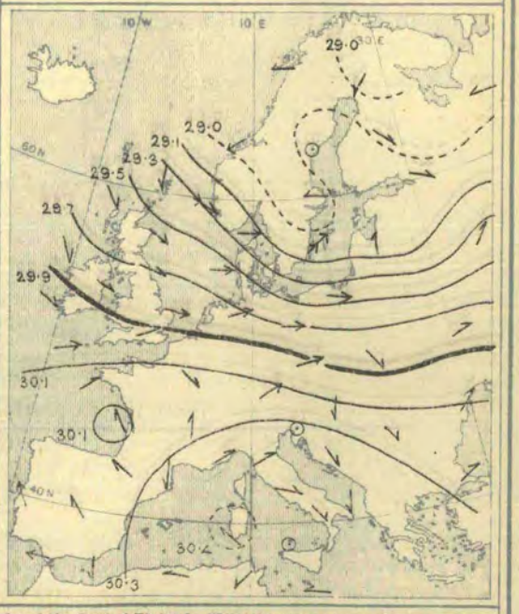
Weather fine and bright over the Spanish Peninsula, the Mediterranean, Adriatic, south of France, and south Germany; fair in north France and south England, cloudy and unsettled elsewhere. Snow falling over the greater part of Russia, the north of Scotland, and at Christiansund, rain at Copenhagen and in the north-west of Ireland. Snow later in considerable quantity over our northern districts, rain in the north-west and at some eastern stations, as well as in Russia and north Germany. Solar halos seen over England during day.

Temperature decreasing over the British Islands and northern Europe, but still rather high for time of year in the British Isles and their neighbourhood. Morning readings exceeding 50° at Corunna and on the southern and western shores of the Mediterranean, and exceeding 40° over Ireland, England, the north of France, Mediterranean, Austria, and south Germany, lower elsewhere. Lowest of all, 13° to 15° over the northern half of Sweden, 21° at Bodö and Uleaborg. Exceeding 55° in many parts of England, France, and Italy during day, and touching 61° at San Fernando, 64° at Lisbon, and 70° at Biarritz.

Barometer and Wind. 8 a.m.



6 p.m.



Wind North-Westerly in Scotland and the Gulf of Finland; Westerly, strong to a gale, over many parts of Ireland, England, the North Sea, north Germany, and Baltic Provinces; South-Westerly in Austria and south Germany, variable and light over France and Italy, North-Easterly over Spain, Southerly in Algeria. A moderate Easterly gale in the Straits of Gibraltar. Moderating in our Islands later, and veering to North-West in the north of Ireland, blowing hard in the south of Norway. Fresh South-Easterly wind setting in at Lisbon.

Barometer highest, 30·4 ins. and more to 30·2 ins. in an anticyclone covering the Mediterranean and southern parts of Europe. Lowest, 28·9 ins. and less in a depression over Finland, 29·0 ins. and less in two others over Norway. Gradients somewhat steep over the British Isles, the North Sea, and north Germany. Falling decidedly over France and England later; depression appearing over the Bay of Biscay.

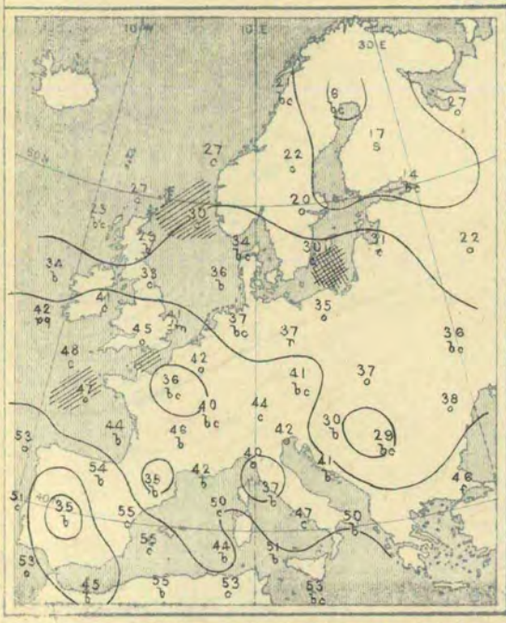
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 7th March.

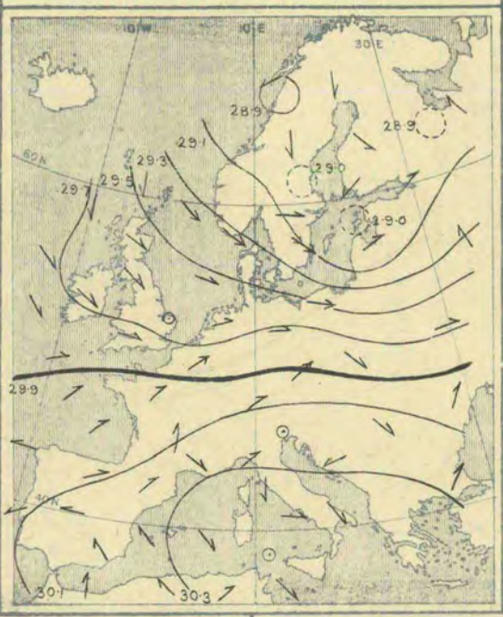
Temperature and Weather.

8 a.m.

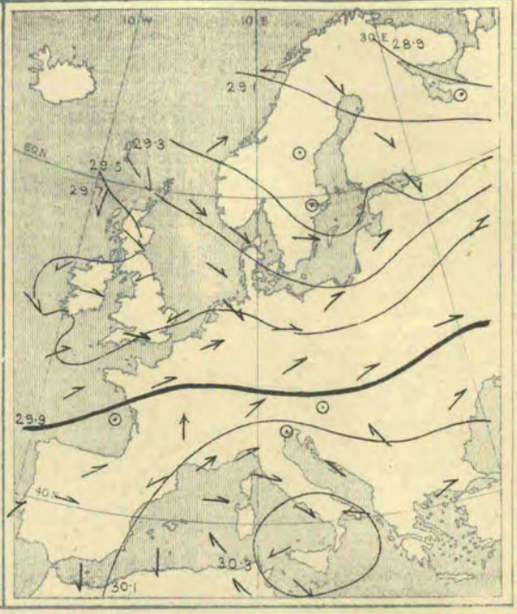


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine and bright over the Mediterranean and southern Europe, dull in the south-east, changeable and unsettled over all the northern and north-western districts; snow falling in Finland and some of the north-western parts of our Islands, rain in several parts of Ireland, England, and north Germany. Snow falling over nearly the whole of our northern and north-western districts later and a great deal of rain at several of the English stations—notably Shields, London, Hurst Castle, and Jersey.

Temperature fallen over the British Islands, northern and north-western Europe, risen in the south-east; frost breaking up in latter regions. Morning readings exceeding 50° at many of the Mediterranean, Spanish, and Portuguese stations, and exceeding 40° over southern and western Germany, the greater part of France, and the southern and south-western parts of the British Islands; much lower elsewhere. Lowest of all, 6° Fahr. at Haparanda, 12° at Uleaborg, 13° at Helsingfors, 14° at St. Petersburg, and below the freezing point over northern Europe generally. Not touching 50° over our Islands later (except at Dungeness), but rising to between 50° and 60° over France, to 61° at Lisbon and Corunna, and to 68° at Biarritz.

Wind chiefly North-Westerly, moderate to light (North to West), over the British Islands and North Sea, Westerly over Denmark and Germany and the Baltic (strong to a gale), and mainly South-Westerly over southern Europe, but varying locally; very variable and light over the Mediterranean, Southerly over Algeria, Easterly in Portugal. Becoming North-Easterly on our north-western coasts later, but Westerly wind over south of England moderating decidedly.

Barometer highest, 30·3 ins. and more to 30·1 ins. over the Mediterranean, south-western, southern, and south-eastern Europe. Lowest, 28·9 ins. and less over the north of Norway and near Archangel, 29·0 ins. and less over the southern part of the Gulf of Bothnia and the Baltic Provinces. Gradients rather steep over the Baltic, moderate in most other places, but variable New shallow depression being developed over Ireland later, moving subsequently to the south eastward and increasing somewhat in intensity.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During the greater part of this week barometric pressure was highest over the southern, lowest over the northern, countries of Europe, and during the 3rd and 4th was somewhat low over Italy and the eastern parts of the Mediterranean also. In the north well-marked depressions moved in an easterly direction from the Atlantic to Scandinavia and Finland, so that Westerly winds and mild weather were prevalent over the northern countries. As on the 3rd and 4th the depression was a deep one and subsequently moved south-eastwards, strong Westerly gales were experienced over Scotland, Norway, and the eastern shores of the North Sea, as well as over the Baltic. These subsequently veered to North-West and temperature began to give way. The Mediterranean depression of the 3rd and 4th caused very rough weather over south-eastern Europe and the neighbouring parts of the Ocean.

At the close of the week an important change set in; a shallow depression was developed over the north of Ireland, and moving south-eastwards caused much rain over many parts of England, the Netherlands, and north of France, while over Scotland and Ireland the wind drew into the Northward, temperature fell fast, and large quantities of snow were experienced in many places. This change to colder weather was apparently spreading southwards when the week ended.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 50.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	26·9	?	36	?	EASTBOURNE	22·5	?	29	?
OSWALDKIRK	22·1	?	29	?	TORQUAY	19·7 *	?	26 *	?
WORKSOP	18·6	−0·2	24	−1	ARLEY (County Cavan)	16·4	?	22	?
THURCASTON	18·8	+1·6	25	+2					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

WEEKLY WEATHER REPORT.

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VOL. VIII. No. 10]. *Third Series.* WEEK ENDING SATURDAY, 14TH MARCH, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0*d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1856-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 56.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°		Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	45	1	37·2	18·7	27·7	11 below.	0	− 7	100	+66	126	+63	363	+ 19
1. SCOTLAND, EAST	51	14	39·5	22·6	30·8	8 below.	0	−14	78	+44	131	+41	413	+ 30
2. ENGLAND, N.E.	44	15	38·2	27·0	32·4	8 below.	0	−14	67	+36	115	+34	408	+ 60
3. ENGLAND, EAST	48	17	40·5	29·9	25·0	5 below.	0	−18	49	+15	117	+25	497	+103
4. MIDLAND COUNTIES	49	10	39·8	26·7	33·1	8 below.	0	−19	62	+30	140	+31	462	+ 80
5. ENGLAND, SOUTH	46	10	39·6	30·9	35·1	7 below.	0	−20	48	+22	114	−13	425	+124
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	46	12	40·0	23·9	31·7	9 below.	0	−12	72	+46	140	+45	231	0
7. ENGLAND, N.W.	44	16	38·9	23·9	33·8	7 below.	0	−13	57	+30	143	+54	314	+ 26
8. ENGLAND, S.W.	49	14	39·4	29·4	34·2	8 below.		−19	55	+33	155	− 3	310	+ 89
9. IRELAND, NORTH	48	14	41·6	24·8	33·0	9 below.	0	−18	63	+40	179	+39	257	+ 12
10. IRELAND, SOUTH	50	17	43·2	26·2	34·5	9 below.	3	−20	55	+36	229	+25	214	+ 29
— CHANNEL ISLANDS	48	30	41·6	34·7	38·1	8 below.	0	−24	27	+19	200	− 9	143	+ 50

Rainfall.

DISTRICTS. (See p. 56.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	2	5	4 less.	49	− 2	12·8	+ 1·7
1. SCOTLAND, EAST	2	3	3 less.	25	−13	2·5	− 3·7
2. ENGLAND, N.E.	5	7	3 more.	26	−10	2·1	− 2·2
3. ENGLAND, EAST	5	3	1 less.	28	− 8	2·4	− 2·0
4. MIDLAND COUNTIES	4	3	1 less.	23	−12	2·6	− 2·6
5. ENGLAND, SOUTH	5	11	7 more.	25	− 9	4·1	− 1·3
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	1	1	8 less.	36	− 7	6·8	− 4·5
7. ENGLAND, N.W.	2	1	5 less.	25	−14	2·9	− 3·6
8. ENGLAND, S.W.	5	9	2 more.	26	−14	4·8	− 3·7
9. IRELAND, NORTH	1	4	2 less.	34	−11	3·3	− 3·7
10. IRELAND, SOUTH	2	3	4 less.	28	−14	3·2	− 5·4
— CHANNEL ISLANDS	7	23	18 more.	29	−16	4·8	− 2·1

Bright Sunshine.

DISTRICTS. (See p. 56.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	41	+ 7	51	+ 9	138	+ 24	22	+ 3
1. SCOTLAND, EAST	37	+21	47	+27	202	+ 49	32	+ 7
2. ENGLAND, N.E.	29	+ 7	36	+ 9	187	+ 63	29	+ 9
3. ENGLAND, EAST	17	− 5	21	− 7	209	+ 57	32	+ 8
4. MIDLAND COUNTIES	16	− 5	20	− 6	205	+ 70	31	+10
5. ENGLAND, SOUTH	7	−16	9	−21	206	+ 71	31	+10
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	43	+22	55	−28	168	+ 46	26	+ 7
7. ENGLAND, N.W.	31	+10	39	+14	198	+ 71	31	+11
8. ENGLAND, S.W.	17	− 8	22	−11	235	+ 75	35	+11
9. IRELAND, NORTH	53	+31	67	+38	205	+ 74	32	+11
10. IRELAND, SOUTH	46	+21	58	+26	220	+ 58	34	+ 9
— CHANNEL ISLANDS	13	−18	17	−21	289	+ 91	43	+13

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather during this week was very cold and unsettled. Soon after the commencement of the period extremely heavy falls of snow, accompanied by severe gales, were experienced over all the more southern and south-western counties. In the north and north-west the conditions were generally dry and fine; in the Hebrides, however, very heavy snow occurred on the 10th.

Temperature has been much below the mean in all districts, the deficit ranging from 5° in "England E." to 7° in "England N.W.," 8° in most other districts, 9° in "Scotland W." and over Ireland, and 11° in "Scotland N." The lowest of the minima were generally recorded on the 12th, when the thermometer fell to 1° in "Scotland N." (at Lairg), to 10° in "England S." and the "Midland Counties," and to between 12° and 17° in most other districts. In the "Channel Islands," however, the lowest reading reported was 30°. The highest of the maxima, which were registered on the 14th, ranged from 44° over the northern parts of England to 50° in "England S." and 51° in "Scotland E." In the north of Scotland the temperature has been lower than during any previous part of the winter.

Rainfall has been much below the mean over the greater part of Ireland and Scotland, as well as in the north-west of England. In most other parts of England and in the "Channel Islands" it has been in excess; in consequence of the drifting of the snow, however, it is probable that the measurements recorded do not represent exactly the actual amount of the fall.

Bright Sunshine has been very prevalent in Ireland and Scotland and moderately so in the north of England; in all the more southern parts of England very little has been recorded. The percentage of the possible duration varied from 58 to 67 in Ireland and from 47 to 55 in Scotland, while over England it ranged from 9 in "England S." to 22 in "England S.W." and to 39 in "England N.W."

Barometer and Wind.—During the earlier part of the period two rather deep depressions travelled quickly in an East-North-Easterly direction over the English Channel and north of France, causing severe Easterly and North-Easterly gales at all our southern stations and the extremely heavy snow noted above. During the latter part of the week the conditions became quieter, as a third depression which appeared off Ushant travelled south-eastwards, and the North-Easterly wind became moderate or light in force. Towards the end of the period the barometer began to fall in the extreme north-west and the winds on our northern coasts shifted to the Westward and South-Westward.

607 1|90 J. & Co.
213 370 3|91 1896

II.—DATA from which the SUMMARY on page 55 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	40	19	35·6	24·9	30·1	− 8·2	0	83	5	0·57	−0·10	*	*	*	*
	Stornoway	41	16	35·3	19·7	27·3	−12·3	0	103	6	2·03	+1·14	28·5	+ 7·5	36	+10
	Wick	42	15	36·0	21·1	28·3	−10·7	0	96	3	0·35	−0·13	*	*	*	*
	Lairg Ⓢ	44	1	38·3	8·3	22·9	−14·9	0	124	1	0·23	−0·47	*	*	*	*
	Glencarron Ⓢ	45	14	37·3	17·6	27·1	−10·9	0	104	0	—	−1·42	*	*	*	*
	Fort Augustus Ⓢ	44	13	39·1	18·0	28·2	−10·8	0	97	1	0·01	−0·69	42·2	?	53	
	Fort William Ⓢ	43	18	38·7	21·2	29·7	−10·3	0	86	1	0·03	−1·39	51·2	?	65	?
1. SCOTLAND, E.	Nairn	45	19	39·1	21·9	30·3	− 9·2	0	82	1	0·02	−0·36	*	*	*	*
	Aberdeen	44	22	38·3	26·3	32·1	− 7·5	0	69	5	0·48	−0·07	44·3	+ 20·7	56	+26
	Braemar Ⓢ	41	14	34·4	17·3	25·9	−10·1	0	113	1	0·03	−0·56	43·5 †	? †	55†	?†
	Ochtertyre Ⓢ	51	15	44·3	21·0	32·3	− 6·5	6	73	1	0·03	−0·66	*	*	*	*
	Leith	46	21	41·9	24·6	33·0	− 7·8	0	63	1	0·02	−0·39	*	*	*	*
	Marchmont Ⓢ	44	15	39·1	23·9	31·3	− 7·3	0	75	4	1·00	+0·42	34·3	?	43	?
2. ENGLAND, N.E.	Alnwick Castle	42	21	37·3	26·9	32·0	− 7·3	0	70	6	1·56	+1·04	*	*	*	*
	Durham	42	15	36·9	24·1	30·3	− 9·3	0	82	6	1·00	+0·54	27·1	+ 4·7	34	+ 5
	Shields	44	19	38·4	24·1	31·0	− 9·3	0	77	6	0·44	+0·03	*	*	*	*
	Scarborough 𝔐	41	29	38·0	31·1	34·5	− 6·2	0	53	6	0·68	+0·26	*	*	*	*
	York	43	15	38·9	23·4	30·9	− 9·7	0	78	4	0·42	0·00	28·0	+ 7·4	35	+ 9
	Spurn Head	42	29	39·6	32·3	35·8	− 4·3	0	43	4	0·15	−0·14	*	*	*	*
3. ENGLAND, E.	Hillington 𝔐	46	23	41·0	30·0	35·3	− 5·5	0	47	4	0·08	−0·32	17·6	− 5·4	22	− 6
	Yarmouth	42	27	39·0	31·6	35·2	− 4·4	0	48	4	0·23	−0·20	*	*	*	*
	Geldeston	45	25	40·8	30·3	35·4	− 5·4	0	46	4	0·21	−0·15	19·3	− 6·7	24	− 8
	Cambridge	48	22	42·9	29·1	35·8	− 5·2	3	44	5	0·35	0·00	17·2	− 7·7	22	− 9
	Rothamsted	46	17	? 38·8	? 28·5	? 33·5	?− 6·7	0	? 60	6	? 0·53	? +0·09	12·7	?	16	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	49	20	39·9	26·1	32·8	− 7·9	0	64	4	0·20	−0·19	*	*	*	*
	Loughborough	48	21	42·3	27·3	34·6	− 6·7	1	50	6	0·10	−0·29	*	*	*	*
	Stamford (Ketton Hall)	44	21	40·1	27·9	33·8	− 7·6	0	57	4	0·33		*	*	*	*
	Cheadle 𝔐	43	22	38·5	27·5	32·8	− 6·7	0	64	1	0·04	−0·52	*	*	*	*
	Churchstoke 𝔐	42	15	38·0	25·4	31·5	− 8·4	0	74	3	0·04	−0·43	16·2	− 6·1	20	− 8
	Hereford 𝔐	43	15	40·1	27·5	33·6	− 8·2	0	59	3	0·53	+0·13	*	*	*	*
	Cirencester	43	10	40·3	25·4	32·6	− 7·2	0	66	4	0·77	+0·27	13·3	−10·7	17	−12
	Oxford	45	15	39·4	26·4	32·7	− 8·8	0	65	5	0·58	+0·18	13·1	− 9·9	16	−14
5. ENGLAND, S.	London	46	23	40·1	31·1	35·5	− 6·6	0	46	4	0·87	+0·49	8·4 †	— 8·8†	11†	−11 †
	Strathfield Turgiss 𝔐	44	10	39·4	27·4	33·2	− 8·5	0	62	3	0·66	+0·26	*	*	*	*
	Dungeness	45	27	41·1	33·4	37·1	− 4·3	0	34	5	1·48	+1·06	*	*	*	*
	Hastings (St. Leonards)	44	28	39·6	32·5	36·0	− 6·3	0	42	7	1·61	+1·17	7·5	−21·5	9	−26
	Southampton	46	25	40·5	30·8	35·5	− 7·3	0	46	5	0·92	+0·43	3·5	−23·0	4	−30
	Hurst Castle	43	28	39·9	32·6	36·1	− 6·0	0	41	6	1·16	+0·71	*	*	*	*
	Stowell 𝔐	39	19	36·3	28·3	32·2	− 8·8	0	69	4	1·31	?	11·1 †	? †	14†	? †
6. SCOTLAND, W.	Laudale (Loch Sunart)	46	18	40·3	22·3	31·0	− 9·9	0	77	2	0·06	−1·44	*	*	*	*
	Glasgow	41	20	38·6	23·8	31·0	− 9·0	0	77	0	—	−0·60	36·1	+18·9	46	+24
	Ardrossan	45	18	41·4	24·6	32·8	− 8·3	0	64	0	—	−0·55	*	*	*	*
	Glenlee Ⓢ	44	12	38·7	19·8	29·0	− 9·8	0	91	1	0·20	−0·67	*	*	*	*
	Douglas (Isle of Man)	44	25	41·1	28·8	34·8	− 6·4	0	50	1	0·17	−0·49	50·2	+24·8	64	+32
7. ENGLAND, N.W.	Newton Reigny	42	16	37·3	23·3	30·1	− 8·8	0	83	1	0·01	−0·49	29·1	+ 7·6	37	+10
	Stonyhurst	41	23	38·3	27·2	32·6	− 7·4	0	66	0	—	−0·80	29·4	+ 8·4	37	+11
	Blackpool 𝔐															
	Manchester	42	21	38·3	27·9	33·0	− 7·5	0	63	3	0·15	−0·40	*	*	*	*
	Liverpool Obsy. (Bidston)	42	26	39·6	29·9	34·6	− 7·0	0	52	1	0·03	−0·37	*	*	*	*
	Llandudno 𝔐	44	26	40·1	31·7	35·8	− 6·9	0	43	1	0·06	−0·42	34·7	+14·5	43	+18
	Holyhead	42	31	39·3	33·4	36·6	− 6·2	0	38	3	0·14	−0·41	*	*	*	*
8. ENGLAND, S.W.	Llandovery	46	14	41·1	26·0	33·3	− 9·0	0	61	4	0·30	−0·58	*	*	*	*
	Pembroke	45	28	40·3	31·4	35·7	− 7·0	0	44	3	0·18	−0·37	24·6	− 2·5	31	− 3
	Arlington (N. Devon)	41	22	36·7	27·7	32·1	− 9·0	0	69	5	?	?	*	*	*	*
	Cullompton 𝔐	49	16	40·6	28·3	34·2	− 8·0	0	55	4	0·51	−0·09	14·8	−10·2	19	−13
	Falmouth	46	29	38·7	32·1	35·3	− 8·4	0	47	6	2·57	+1·79	16·8	−10·4	21	−14
	Plymouth	47	26	38·3	30·7	34·7	− 9·2	0	51	5	0·86	+0·26	13·8	−14·2	17	−18
	Prawle Point												*	*	*	*
9. IRELAND, N.	Malin Head	44	29	38·4	30·6	34·4	− 8·0	0	53	1	0·15	?	*	*	*	*
	Londonderry	46	24	43·6	25·9	34·6	− 8·0	4	56	3	0·47	−0·15	*	*	*	*
	Mullaghmore	47	25	40·7	28·0	34·2	− 8·8	0	55	1	0·44	−0·17	*	*	*	*
	Belmullet	48	26	42·4	29·0	35·5	− 9·1	1	44	2	0·80	?	*	*	*	*
	Markree Castle	47	14	42·5	18·9	30·5	−11·2	1	80	1	0·38	−0·21	43·9	+27·4	62	+35
	Brookeborough	47	16	41·5	17·8	29·3	−11·2	0	89	1	0·47	−0·18	*	*	*	*
	Armagh	46	19	41·2	21·1	30·9	−10·0	0	78	1	0·41	−0·09	52·3	+32·3	66	+41
	Donaghadee	46	28	41·7	29·9	35·6	− 6·2	0	45	1	0·21	−0·29	*	*	*	*
	Edgeworthstown	46	21	42·0	22·3	31·9	− 8·9	0	71	1	0·35	−0·30	*	*	*	*
10. IRELAND, S.	Dublin	46	27	41·6	29·6	35·4	− 7·9	0	46	3	0·27	−0·22	45·9	+21·3	57	+26
	Parsonstown	50	18	42·1	20·7	31·1	−11·1	0	73	1	0·43	−0·11	43·3	+18·8	54	+24
	Kilkenny	48	19	42·7	23·9	33·0	− 9·9	2	62	1	0·31	−0·20	*	*	*	*
	Waterford	48	23	43·3	26·9	34·9	− 9·1	4	52	1	0·44	−0·27	*	*	*	*
	Roche's Point	48	28	44·4	30·1	37·0	− 7·6	7	42	1	0·25	−0·65	*	*	*	*
	Valencia	50	27	44·4	30·9	37·5	− 8·1	7	39	2	0·20	−0·80	50·0	+22·0	63	+29
	Killarney	49	17	43·6	21·4	32·2	−12·1	4	71	2	0·39	?	*	*	*	*
	Foynes	48	22	43·3	26·1	34·5	− 9·0	4	55	2	0·44	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	48	30	41·6	34·7	38·1	− 7·8	0	27	7	2·33	+1·78	*	*	*	*
	Jersey												13·3	−18·5	17	−23

Stations marked 𝔐 are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

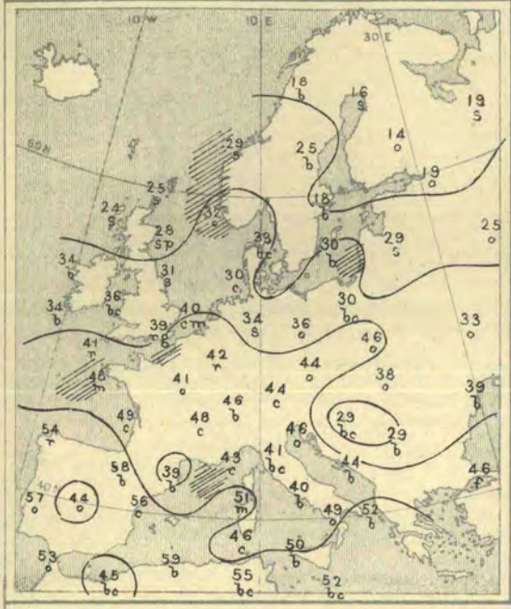
* An asterisk is inserted in all places for which the information is not usually received.

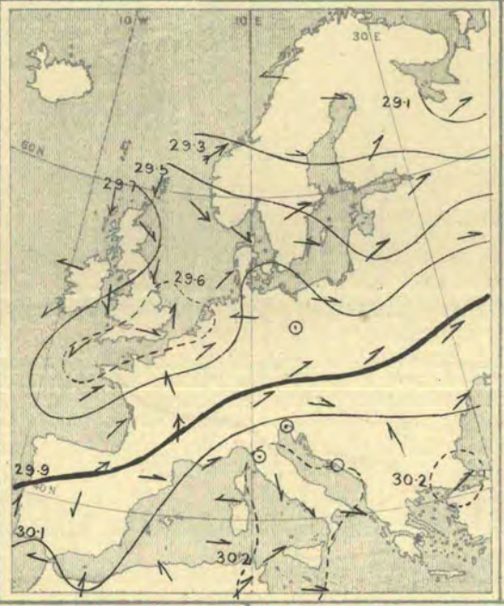
† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

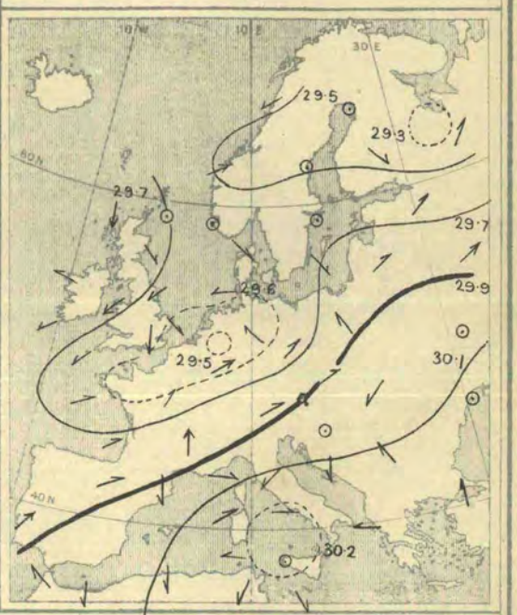
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 8th March.

Temperature and Weather.	Barometer and Wind.	
8 a.m.	8 a.m.	6 p.m.







Weather dull and rainy over the south of England, Belgium, and the north of France, snow falling in the northern parts of England and Scotland, as well as over Holland, north Germany, Lapland, and the north of Russia. Fine in Ireland and the west of Scotland, as well as in Sweden and the greater part of southern Europe. Rain spreading over France later to all but the southern Departments. Snow showers falling in many parts of the United Kingdom.

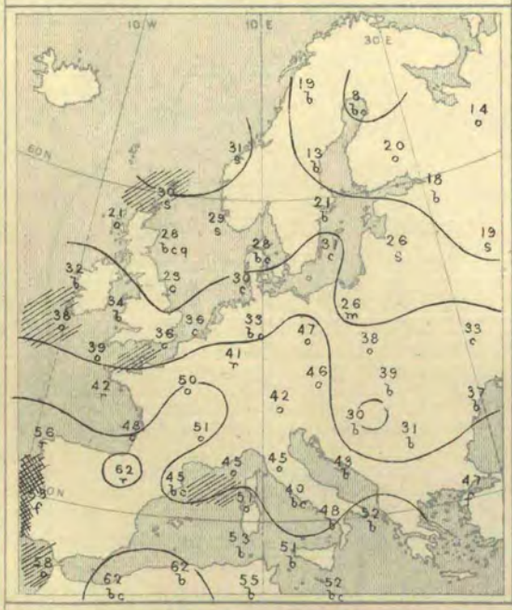
Temperature highest, 59° at Algiers, 58° at Biarritz, 57° at Oporto, 56° at Barcelona, and 55° at La Calle; above 50° at many of the Mediterranean stations. Lowest, 10° at Uleaborg, 12° at Helsingfors, 14° at Kuopio and Hangö, 16° at Haparanda, and 18° at Bodö and Stockholm; lowest in our Islands, 23° at Parsonstown, 24° at Stornoway, and 25° at Sumburgh Head and Wick. Daily maxima below 40° in nearly all parts of the United Kingdom and below 30° in the extreme north of Scotland. Thermometer exceeding 60° over Spain and the south of France and reaching 73° at Algiers.

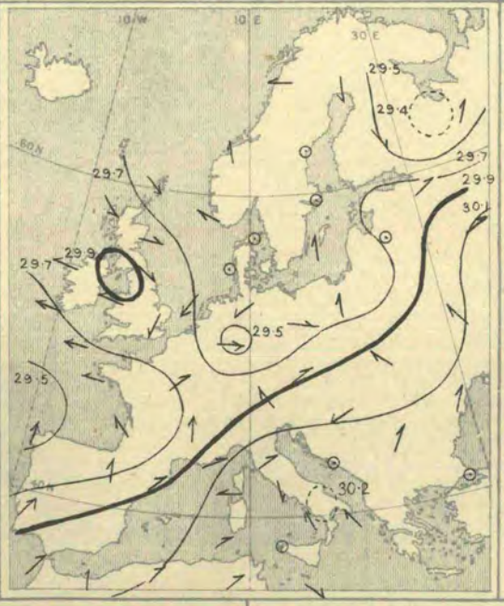
Wind light to fresh from the Northward over the greater part of the United Kingdom, but Southerly or South-Westerly in the extreme south-east of England, as well as over Algeria, Spain, France, and western Germany. Light from the South-Westward or Westward over Russia and Scandinavia. Subsequently shifting to the Northward in the south-east of England, but little change observed elsewhere.

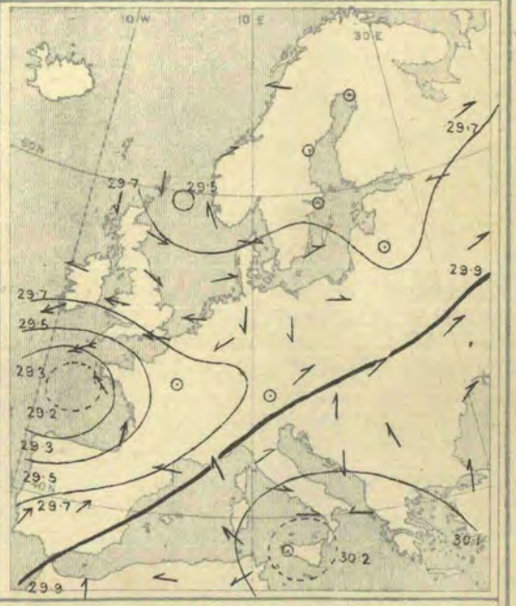
Barometer highest, 30·1 ins. to 30·2 ins. and upwards in a large anticyclone covering the whole of the Mediterranean, with Italy and eastern Europe; 29·8 ins. and upwards in the extreme north-west of our Islands. Lowest, 29·1 ins. and less in a depression lying over northern Russia, 29·6 ins. and less in a shallow and irregularly-formed disturbance lying over the greater part of England. Latter system subsequently moving slowly eastwards, and high-pressure area to the north-westward of our Islands spreading over our northern districts.

Monday, 9th March.

Temperature and Weather.	Barometer and Wind.	
8 a.m.	8 a.m.	6 p.m.







Weather fine over the greater part of the United Kingdom, but continuous snow falling in the extreme north of Scotland and showers of snow at Spurn Head and Jersey. Fine also over Sweden, Denmark, Russia, Algeria, and the south of Italy, but dull elsewhere, with rain in the west of France and the north of Spain. Heavy snowstorms setting in later over the south of England, Belgium, and the north of France; rain continuing to fall on the shores of the Bay of Biscay. Thunderstorm reported at Madrid in evening.

Temperature highest, 62° at Biarritz, Oran, and Algiers, 58° at Lisbon and San Fernando, and 57° at Oporto, Barcelona, and Nemours; above 50° at nearly all the Mediterranean stations, as well as over central France. Lowest, (1) 8° at Haparanda, 12° at Uleaborg and Hangö, 13° at Hernösand, and 14° at Archangel; (2) 21° at Stornoway and 23° at Shields and York; below the freezing point over all the more northern parts of our Islands and the Continent. Daily maxima below 40° over nearly the whole of the United Kingdom, but thermometer exceeding 60° in the west and south of France and reaching 73° at Biarritz.

Wind light or moderate from the North-Westward in the north of our Islands, fresh from the Northward or North-Eastward in the east and south-east, moderate to strong from the Eastward in the west and south-west. Light from the Southward in Algeria and moderate to strong from the same quarter over the greater part of Spain and France. Light South-Easterly in Italy, Southerly or South-Westerly over central Europe, variable in the more northern countries. Subsequently increasing to a strong gale from the Eastward over the Channel and south of England.

Barometer highest, 30·1 ins. to 30·2 ins. and upwards in an anticyclone extending from the south of Russia to Italy and the Mediterranean, 29·9 ins. and upwards in a small anticyclone lying over the central parts of the United Kingdom. Lowest, 29·4 ins. and less in a depression lying over the north of Russia, 29·5 ins. and less in another lying to the north-westward of Spain, 29·6 ins. and less in a shallow system lying over north Germany and the Baltic. Depression to north-westward of Spain subsequently advancing north-eastwards to mouth of Channel and barometer falling quickly on our southern coasts.

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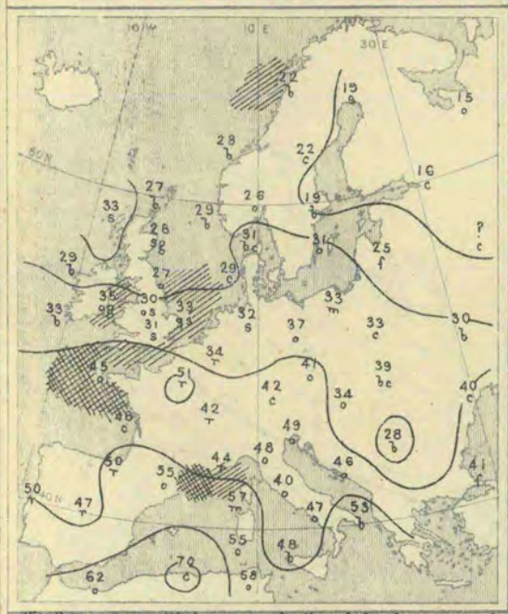
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 10th March.

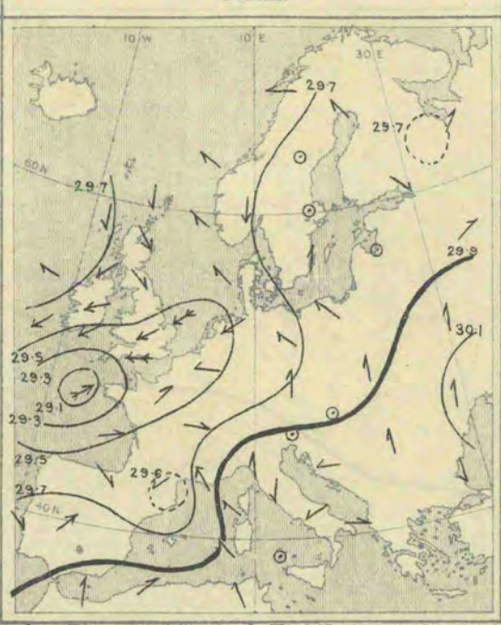
Temperature and Weather.

8 a.m.

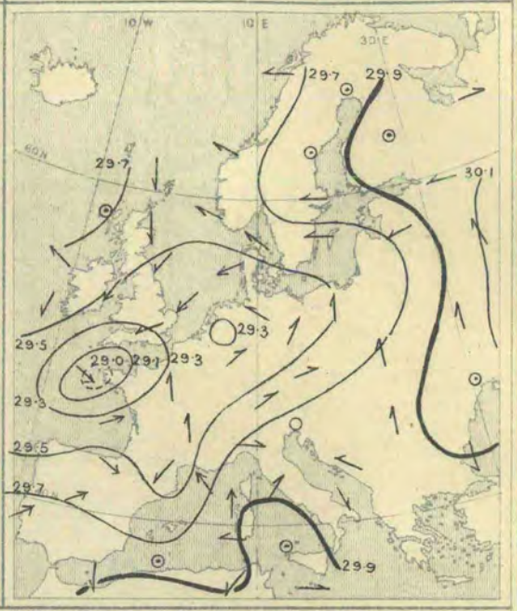


Barometer and Wind.

8 a.m.



6 p.m.



Weather very unsettled over nearly the whole of western and southern Europe, rain falling in Spain, France, Belgium, and western Germany, and snow in many parts of England, as well as in the north and east of Scotland, Denmark, and north Germany. Fine in Ireland and also in Norway, Austria, and the south of Italy; fair at most of the Russian and Algerian stations. Considerable amounts of snow falling later in the south of England, and heavy rain in France, Germany, and central Spain; largest amounts measured next morning being 2·4 ins. at Besançon and 1·1 ins. at Madrid.

Temperature highest, 70° at Algiers, 62° at Bilbao and Nemours, 60° at Oran, and 58° at La Calle; above 55° over all the central and southern parts of the Mediterranean. Lowest, 9° at Helsingfors, 10° at Hangö, 15° at Archangel, and 16° at St. Petersburg; below the freezing point over the whole of northern Europe and also over the greater part of the United Kingdom. Daily maxima over our Islands below 40°, excepting in the south-west, but thermometer exceeding 55° at many of the French stations, and reaching 68° at Perpignan. Rising above 70° in Algeria.

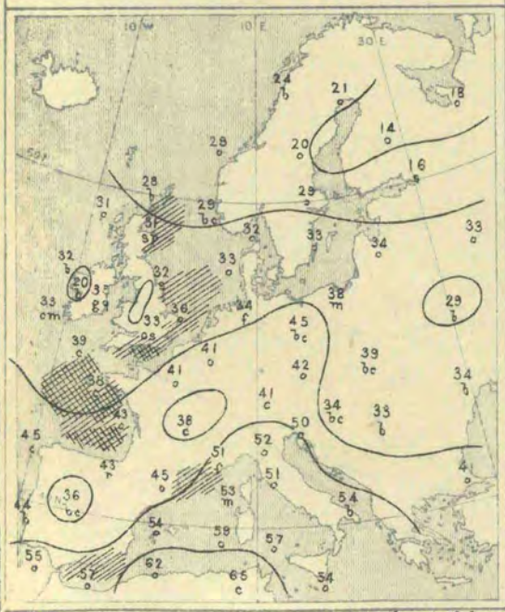
Wind Northerly in Scotland, but North-Easterly or Easterly over Ireland, England, and the Netherlands, with a gale at the Channel stations. Moderate to strong from the South-Westward over France and Spain, light from the South-Eastward in Germany, and from the Southward in the south of Russia, as well as in Algeria. Variable over Scandinavia and northern Russia and also in Italy. No important change occurring during day.

Barometer highest, 30·0 ins. to 30·1 ins. and upwards in an anticyclone extending from the south of Russia to Italy and the Mediterranean. Lowest, 29·1 ins. and less in a well-marked depression lying at the mouth of the Channel, 29·3 ins. and less in another disturbance lying over Belgium, 29·5 ins. and less in a large trough extending from the Bay of Biscay to western Germany. Low-pressure systems subsequently moving eastwards and barometer falling in all parts of western Europe.

Wednesday, 11th March.

Temperature and Weather.

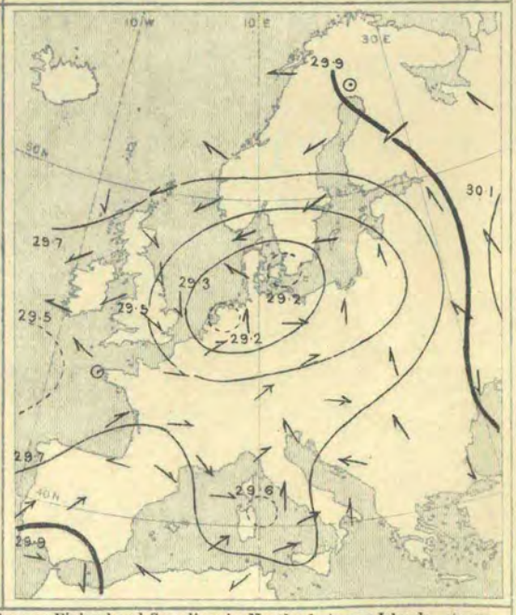
8 a.m.



Barometer and Wind.

8 a.m.

6 p.m.



Weather still very unsettled in the east and south-east of Great Britain, with snow showers in many places. Dull at many of the Continental stations, with fog over north Germany, rain in some parts of France and Italy, and snow over the Gulf of Finland. Fine in the west and north of our Islands, as well as in Poland, Austria, the south of Russia, and central Spain. Rain falling during day at most of the French and German stations, as well as in some parts of southern Europe, and slight snow in the extreme north of Scotland.

Temperature highest, 65° at La Calle, 62° at Algiers, 60° at Tunis, and 59° at Cagliari; above 50° at most of the Mediterranean stations. Lowest, 14° Fahr. at Kuopio, 17° at Uleaborg, and 18° at Archangel; below the freezing point in nearly all parts of northern Europe, as well as over the northern and central parts of the United Kingdom, and as low as 20° at Parsonstown. Daily maxima mostly below 40° in the north and east of Great Britain and below 45° in the west, but thermometer rising to between 50° and 55° over France and to 60° or more in Italy and Algeria.

Wind Easterly or North-Easterly over Finland and Scandinavia, Northerly in our Islands—strong in force on our east and south-east coasts, strong to a gale from the Westward or North-Westward in the west of France, Southerly or South-Westerly over the eastern and central parts of France and the north of Italy. Light from the South-Eastward or Southward over the greater part of central and eastern Europe, Westerly to North-Westerly over Spain. Subsequently backing to the North-Westward in the south-east of England, and to the South-Westward over Spain and the Bay of Biscay, but shifting to the Eastward in the south of Ireland.

Barometer highest, 30·1 ins. and upwards in a large anticyclone lying over Russia, 29·9 ins. and upwards in another system lying to the south-westward of Spain. Lowest, 29·2 ins. and less in a depression lying over Kent, Belgium, and the north-east of France, 29·3 ins. and less in a long trough stretching from the north of France to Denmark. Depression subsequently moving away north-eastwards and barometer rising in all parts of the United Kingdom.

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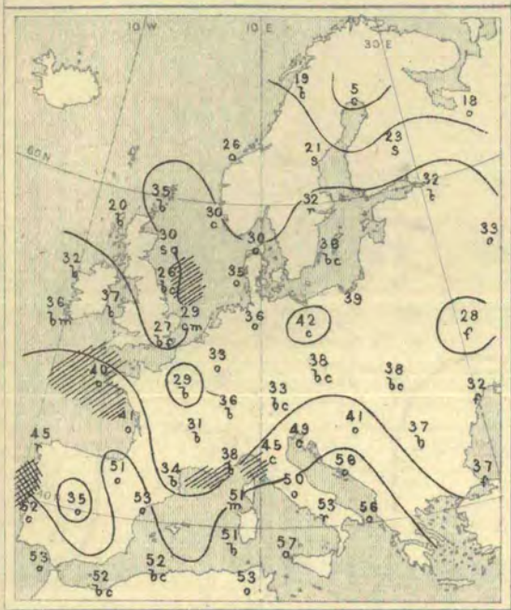
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 12th March.

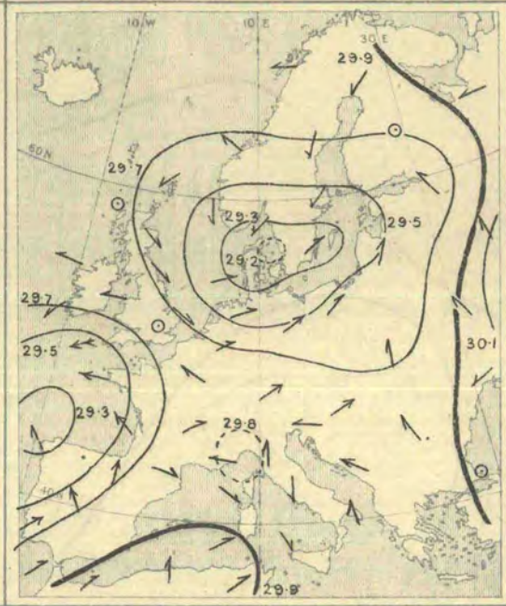
Temperature and Weather.

8 a.m.

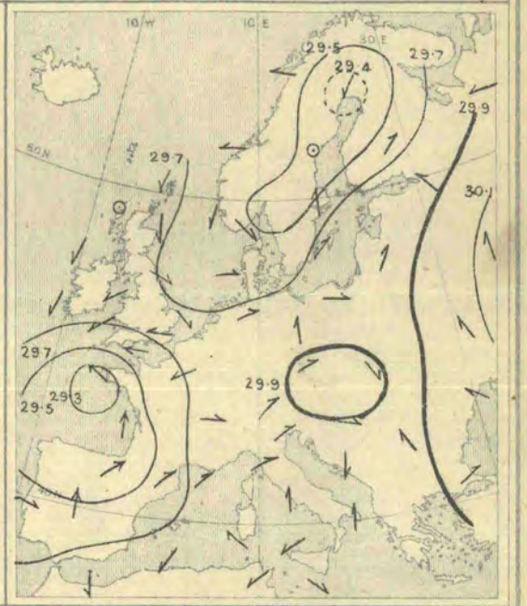


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine over the greater part of our Islands, as well as over the Netherlands, western Germany, Austria, Algeria, and the eastern and central parts of France, but snow showers reported on the east coasts of Great Britain. Dull elsewhere, with fog over the south of Russia, rain on the west coasts of the Iberian Peninsula and at Lorient and Rome, and snow in some parts of Finland and Scandinavia. Snow falling at night at some of our south coast stations and rain over Spain and west of France, but weather clearing in the west of Norway.

Temperature highest, 58° at Sfax, 57° at Palermo, 56° at Lésina and Brindisi, and 54° at Bilbao; a little above 50° at most of the Mediterranean stations. Lowest, (1) 5° at Haparanda, 12° at Uleaborg, 18° at Archangel, and 19° at Bodö; (2) 16° at Oxford, 20° at Stornoway, 22° at Loughborough, and 23° at Parsonstown; below the freezing point in nearly all parts of our Islands and northern Europe. Daily maxima below 45° over the greater part of the United Kingdom, and below 40° at some of our northern and eastern stations, but thermometer exceeding 50° in the west and south of France and reaching 63° at Perpignan.

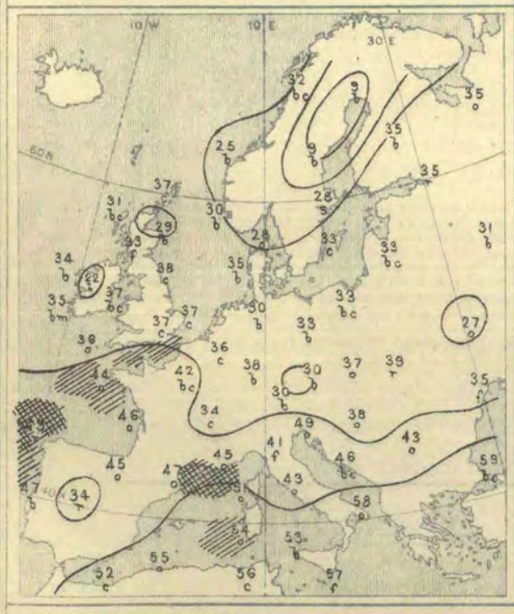
Wind strong from the Southward over Spain and the west of France and from the Eastward over Brittany, light from the Eastward or North-Eastward in the extreme south and south-west of our Islands. Moderate from North or North-West in the north and east of the United Kingdom, moderate from South-West over Germany and the Baltic, light from the Southward over western Russia, moderate to strong from East or North-East over Finland and Scandinavia. Variable over Italy, Southerly in Algeria. Easterly breezes setting in later over all the more southern parts of our Islands and blowing a gale at some of the Channel stations.

Barometer highest, 30·1 ins. and upwards in a large anticyclone lying over Russia, 29·9 ins. and upwards over Algeria and the adjacent parts of the Mediterranean. Lowest, 29·3 ins. and less in an elongated depression lying over Denmark and the south of Sweden, and also in a new system lying off the north-west of Spain. Both disturbances moving north-eastwards later and barometer falling somewhat decidedly over France.

Friday, 13th March.

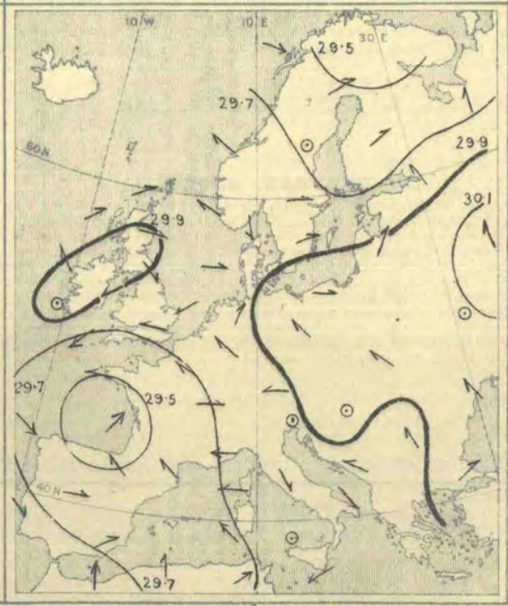
Temperature and Weather.

8 a.m.

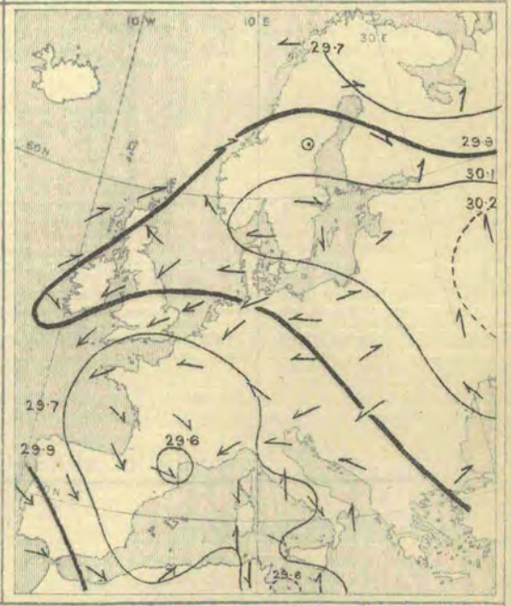


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine over the greater part of our Islands, as well as over northern and central Europe, but snow reported at Uleaborg and Stockholm and rain at St. Petersburg. Dull elsewhere, with rain over Spain and the south of France and fog at some of the Italian stations, as well as in the south of Russia. A little rain or sleet falling later in the south of England; large quantities of rain falling in the south of France—as much as 2·0 ins. at Cape Béarn. Thunderstorm occurring at Algiers.

Temperature highest, 58° at Brindisi, 57° at Malta, 56° at La Calle, 55° at Algiers, and 54° at Cagliari and Tunis; above 50° at most of the Mediterranean stations. Lowest, (1) 9° at Haparanda and Hernösand, 18° at Uleaborg, and 25° at Christiansund; (2) 22° at Parsonstown, 25° at Nairn, and 29° at Aberdeen and Mullaghmore; below the freezing point in many parts of the United Kingdom. Subsequently rising to 45° or more at several of our own stations, exceeding 55° in some parts of France, and exceeding 60° in Algeria and the south of Italy.

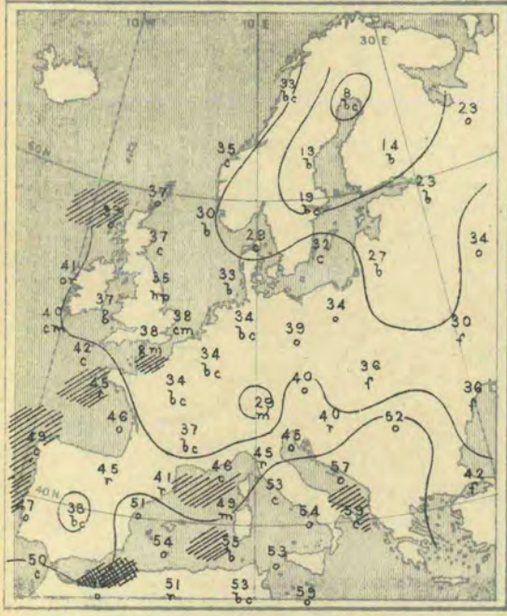
Wind North-Westerly or Westerly in Spain, Southerly or South-Easterly in France and Algeria, and North-Easterly over the southern parts of the United Kingdom; strong in force at some of the Channel stations. Light from the South-Westward in the north of our Islands and from the South-Eastward in the west of Norway. Moderate from South-West over Finland and the Baltic; variable over Germany, Austria, and Italy. No important change occurring later.

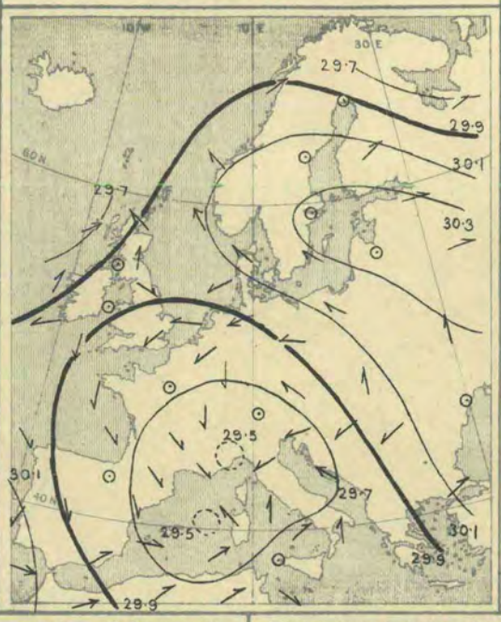
Barometer highest, 30·1 ins. and upwards in an anticyclone lying over central Russia, 29·9 ins. and upwards in a narrow band of high pressure stretching from south-west to north-east across Ireland and Scotland. Lowest, 29·3 ins. and less in a depression lying over the Bay of Biscay and the west of France, 29·6 ins. and less in another system lying over Lapland. Former disturbance subsequently moving eastwards over France.

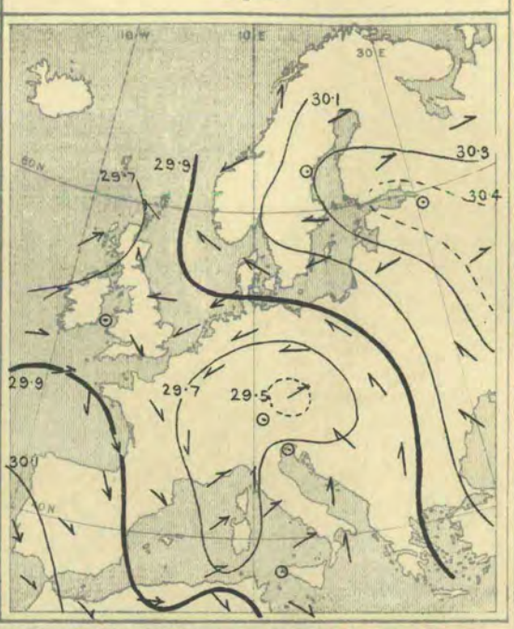
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons

Saturday, 14th March.

Temperature and Weather.	Barometer and Wind.	
8 a.m.	8 a.m.	6 p.m.







Weather varying greatly in different localities, but cloudy in most countries, with fog in many parts of eastern Europe, rain in the south of France and north of Italy, and hail or sleet at some of the English stations. Heavy rain setting in over many parts of Ireland at night and smaller amounts at some of the German stations; thunderstorm reported at Algiers.

Temperature highest, 59° at Brindisi and Malta, 57° at Lesina, 55° at Cagliari, and 54° at Rome and Oran; above 50° at nearly all the Mediterranean stations. Lowest, 8° at Haparanda, 13° at Uleaborg and Hernösand, 14° at Kuopio, and 17° at Hangö; below the freezing point in most parts of northern Europe, as well as over central Ireland and the south of Scotland. Daily maxima below 40° at some of our northern and north-eastern stations, but thermometer reaching 50° in the south of Ireland, exceeding 55° in many parts of France, and exceeding 60° in Algeria and the south of Italy.

Wind light to fresh from the southward or South-Westward in the extreme north and north-west of our Islands and from the South-Eastward in the west of Norway. Light or moderate from the Eastward over Denmark, the Baltic, and central Europe, from the North-Eastward in the south of our Islands, from the Northward or North-Westward in France and Spain, from the South-Westward in Algeria, and from the Southward in Italy. Light and variable over Sweden and Russia. Southerly wind subsequently blowing strongly in the north of Scotland.

Barometer highest, 30·1 ins. to 30·3 ins. and upwards in an anticyclone lying over Russia and Scandinavia, 30·1 ins. and upwards in another system lying to the south-westward of the Spanish Peninsula. Lowest, 29·6 ins. and less in a large depression lying over Switzerland, the south of France, and the north of Italy; 29·8 ins. and less in another disturbance lying to the north-westward of our Islands. Depression over southern Europe subsequently moving slowly north-eastwards; system to north-westward of our Islands becoming more strongly marked.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

At the commencement of the week barometrical pressure was highest over the Mediterranean and eastern Europe, and lowest over the northern parts of Scandinavia and Russia. On the 8th a shallow area of low readings, which had advanced over the southern parts of the United Kingdom from the northward, and which had occasioned heavy rain at some of the English stations, travelled away to the eastward and dispersed; but on the evenings of the 9th and 10th two depressions of considerable intensity advanced across the Bay of Biscay and moved steadily east-north-eastwards over the Channel and north of France, their progress being attended by strong Easterly or North-Easterly gales and severe snowstorms, over the south of England, and by strong South-Westerly winds and heavy rain in France. In the meantime pressure was giving way over southern Europe, while it was increasing over Russia, so that on the 11th and 12th the disturbances travelled north-eastward over Denmark and the Baltic and ultimately northwards to Lapland, where they dispersed. A new depression which appeared over the Bay of Biscay on the 12th threatened at one time to produce more bad weather in the south of our Islands, but this disturbance ultimately moved south-eastwards and dispersed without occasioning anything more than slight gales at some of the Channel stations.

At the close of the week pressure was still highest over Russia, but a second anticyclone was appearing off the south-west of the Spanish Peninsula. In the west and north of our Islands the barometer was giving way somewhat decidedly and increasing South-Westerly winds were setting in, with rainy unsettled weather.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 56.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	25·1	?	32	?	EASTBOURNE	4·7	?	6	?
OSWALDKIRK	30·3	?	38	?	TORQUAY	17·0	?	21	?
WORKSOP	22·3	+1·5	28	+2	ARLEY (County Cavan)	58·2	?	74	?
THURCASTON	14·8	−4·2	19	−5					

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 11]. *Third Series.* WEEK ENDING SATURDAY, 21ST MARCH, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10*s.* 0*d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 62.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°		Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	49	27	43·1	33·4	38·1	1 below.	3	− 5	30	− 4	129	+56	393	+ 18
	1. SCOTLAND, EAST -	50	22	41·4	33·0	37·1	2 below.	0	−15	34	0	131	+23	447	+ 28
	2. ENGLAND, N.E. - -	48	24	41·6	33·6	37·5	3 below.	0	−15	32	+ 1	115	+13	440	+ 59
	3. ENGLAND, EAST -	52	28	45·1	33·5	39·2	2 below.	9	−11	31	− 3	126	+11	528	+ 95
	4. MIDLAND COUNTIES	53	21	44·5	32·2	38·2	3 below.	7	−14	35	+ 2	147	+13	497	+ 79
	5. ENGLAND, SOUTH -	49	25	44·7	33·8	39·1	3 below.	8	−13	30	+ 3	122	−27	455	+124
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	52	26	44·3	33·9	39·0	2 below.	6	− 7	29	+ 3	146	+36	310	+ 1
	7. ENGLAND, N.W. -	51	25	43·3	34·0	38·5	3 below.	4	−10	28	+ 1	147	+41	342	+ 24
	8. ENGLAND, S.W. -	53	21	45·8	33·0	39·2	4 below.	11	− 9	33	+11	166	−12	342 *	+ 95
	9. IRELAND, NORTH -	56	30	46·7	36·0	41·2	1 below.	13	− 6	23	0	192	+33	280	+ 10
	10. IRELAND, SOUTH -	52	26	48·2	35·0	41·4	3 below.	17	− 7	27	+ 8	246	+19	241	+ 35
	— CHANNEL ISLANDS -	54	32	47·5	39·2	43·2	2 below.	20	− 4	8	− 1	220	−13	151	+ 44

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 62.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	5	2	7 less.	54	− 1	13·0	+ 1·0	21	+ 4	25	+ 5	159	+ 23	23	+ 3
	1. SCOTLAND, EAST -	4	14	9 more.	29	−13	3·9	− 2·8	8	−16	9	−22	210	+ 31	30	+ 4
	2. ENGLAND, N.E. - -	6	9	5 more.	32	− 7	3·0	− 1·7	13	−12	15	−15	200	+ 50	28	+ 7
	3. ENGLAND, EAST -	6	5	1 more.	34	− 5	2·9	− 1·8	16	− 7	19	− 9	225	+ 44	30	+ 5
	4. MIDLAND COUNTIES-	5	4	0 (average)	28	− 9	3·0	− 2·7	10	−12	12	−15	215	+ 54	29	+ 7
	5. ENGLAND, SOUTH -	5	5	1 more.	30	− 6	4·6	− 1·2	12	−12	14	−17	218	+ 56	29	+ 7
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	2	7	1 less.	38	− 9	7·5	− 4·6	29	+ 6	34	+ 7	197	+ 52	27	+ 6
	7. ENGLAND, N.W. - -	2	3	3 less.	26*	−16	3·2	− 3·8	18	− 4	22	− 3	216	+ 65	30	+ 9
	8. ENGLAND, S.W. - -	3	5	2 less.	29	−14	5·3	− 3·8	27	0	33	0	262	+ 71	35	+ 9
	9. IRELAND NORTH -	4	4	2 less.	38	−11	3·7	− 3·9	28	+ 7	34	+ 7	233	+ 79	32	+10
	10. IRELAND, SOUTH -	3	4	3 less.	31	−14	3·6	− 5·6	22	− 5	27	− 6	242	+ 53	33	+ 7
	— CHANNEL ISLANDS -	3	4	1 less.	32	−16	5·2	− 2·3	38	+ 3	46	+ 4	327	+ 87	43	+11

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather during this week was generally cloudy or dull, with rather frequent rain during the earlier part of the period, and some sleet and snow showers towards its close. At Shields on the 15th and at Leith on the following day the rainfall was very heavy.

Temperature has continued below the mean; the deficit has, however, been much less than it was during last week; in "Scotland N." and "Ireland N." it was only 1°, in most other districts 2° or 3°, and in "England S.W." 4°. The highest of the maxima, which were recorded on irregular dates, ranged from 56° in "Ireland N." to 48° in "England N.E." The lowest of the minima, which occurred either at the commencement or end of the week, varied from 21° in the "Midland Counties" and "England S.W." and 22° in "Scotland E." to 30° in "Ireland N." and 32° in the "Channel Islands."

Rainfall has been more than the mean in the east of Scotland and over southern, eastern, and north-eastern England, and about equal to it in the "Midland Counties;" in all other districts a deficit is shown.

Bright Sunshine shows a decided increase in the "Channel Islands," but a decrease in nearly all other districts. The percentage of the possible duration, which has been below the mean in most places, ranged from 9 in "Scotland E." and from between 12 and 19 in most parts of England to 34 in "Scotland W." and "Ireland N." and to 46 in the "Channel Islands."

Barometer and Wind.—During the earlier part of the week a rather deep depression moved southwards from the north-west of Ireland to the Bay of Biscay; this disturbance caused strong Southerly to Easterly winds and gales in the north and strong winds and gales from the South-Westward in the west and south. As this system disappeared the distribution of pressure over the United Kingdom became anticyclonic and the winds light or moderate in force—at first from the Eastward and subsequently from the Northward.

* This value has been altered owing to the receipt of further information.

607 1 | 90 J. & Co.
213 370 3 | 91 1896

II.—DATA from which the SUMMARY on page 61 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	45	32	41·7	33·7	37·6	− 0·8	0	31	7	0·23	−0·39	*	*	*	*
	Stornoway	47	31	44·4	33·9	39·0	− 0·8	7	29	4	0·09	−0·76	27·3	+ 4·5	33	+ 5
	Wick	45	30	42·0	34·3	38·0	− 1·6	0	28	4	0·17	−0·28	*	*	*	*
	Lairg Ⓢ	44	27	41·3	30·5	35·7	− 2·5	0	44	7	0·39	−0·28	*	*	*	*
	Glencarron Ⓢ	47	27	43·3	32·6	37·8	− 0·8	4	33	5	0·22	−1·18	*	*	*	*
	Fort Augustus Ⓢ	49	31	44·1	34·1	39·0	− 0·6	6	28	3	0·09	−0·56	11·6	?	14	?
	Fort William Ⓢ	49	30	44·7	34·6	39·6	− 1·0	8	27	3	0·08	−1·25	23·8	?	29	?
1. SCOTLAND, E.	Nairn	47	32	42·6	34·7	38·5	− 1·4	2	25	2	0·05	−0·34	*	*	*	*
	Aberdeen	44	34	42·3	35·4	38·8	− 1·1	1	23	5	0·26	−0·26	7·8	− 17·8	9	−22
	Braemar Ⓢ	40	28	37·0	30·9	33·9	− 2·7	0	57	4	0·73	+0·16	8·3†	? †	10†	?†
	Ochtertyre Ⓢ	50	29	44·1	31·1	37·4	− 2·2	6	38	4	2·04	+1·42	*	*	*	*
	Leith	45	25	42·6	33·9	38·1	− 3·1	2	28	3	2·10	+1·78	*	*	*	*
	Marchmont Ⓢ	42	22	39·9	32·0	35·8	− 3·3	0	43	5	3·13	+2·56	10·5	?	13	?
2. ENGLAND, N.E.	Alnwick Castle	41	33	39·7	35·3	37·3	− 2·5	0	33	5	1·38	+0·86	*	*	*	*
	Durham	41	24	40·3	31·7	35·9	− 4·1	0	43	7	0·92	+0·42	6·4	+18·1	8	−21
	Shields	43	27	41·3	32·4	36·7	− 4·0	0	37	7	1·64	+1·23	*	*	*	*
	Scarborough ℳ	43	32	41·1	34·4	37·7	− 3·4	0	30	5	0·96	+0·53	*	*	*	*
	York	48	28	44·6	32·3	38·3	− 2·9	7	35	6	0·28	−0·12	13·9	− 8·7	17	−10
	Spurn Head	44	33	42·7	35·3	38·9	− 1·9	2	23	5	0·41	+0·13	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	51	30	46·1	33·1	39·4	− 2·0	11	33	5	0·51	+0·13	17·2	− 7·4	21	− 8
	Yarmouth	43	32	40·9	34·3	37·5	− 2·5	0	32	6	0·38	−0·03	*	*	*	*
	Geldeston	48	30	45·6	33·1	39·2	− 2·4	10	33	6	0·41	+0·06	17·6	−11·6	21	−14
	Cambridge	52	28	47·0	33·7	40·2	− 1·6	14	32	6	0·61	+0·28	20·7	− 7·6	25	− 8
	Rothamsted	49	30	46·0	33·5	39·6	− 1·3	11	32	6	0·43	+0·03	7·4	?	9	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	52	31	45·1	33·6	39·2	− 1·9	9	31	5	0·36	−0·04	*	*	*	*
	Loughborough	53	28	45·7	32·7	39·0	− 2·9	10	34	5	0·36	−0·02	*	*	*	*
	Stamford (Ketton Hall)	48	31	44·9	33·4	39·0	− 2·8	8	31	7	0·37	?	*	*	*	*
	Cheadle ℳ	50	29	43·1	31·9	37·4	− 2·6	3	35	4	0·53	+0·01	*	*	*	*
	Churchstoke ℳ	51	22	43·7	29·2	36·2	− 4·1	5	41	5	0·49	+0·04	9·8	−15·0	12	−17
	Hereford ℳ	53	24	45·1	32·0	38·4	− 4·1	9	36	5	0·49	+0·10	*	*	*	*
	Cirencester	?	21	?	30·6	?	?	?	?	4	0·55	+0·08	7·5	−18·2	9	−22
	Oxford	47	30	44·1	32·7	38·2	− 3·9	6	33	4	0·37	0·00	8·4	−17·6	10	−22
5. ENGLAND, S.	London	47	32	45·0	35·7	40·2	− 2·5	8	23	3	0·35	−0·01	6·5†	−13·5†	8†	−16†
	Strathfield Turgiss ℳ	49	28	45·7	32·4	38·9	− 3·2	10	35	5	0·43	+0·09	*	*	*	*
	Dungeness	47	27	44·9	34·3	39·4	− 2·3	8	28	4	0·58	+0·17	*	*	*	*
	Hastings (St. Leonards)	48	32	41·2	34·8	39·3	− 3·6	6	25	6	0·48	+0·03	15·4	−16·5	19	−18
	Southampton	49	29	46·0	33·6	39·6	− 3·7	11	31	5	0·58	+0·13	10·7	−19·2	13	−22
	Hurst Castle	47	30	44·7	34·7	39·6	− 3·0	8	27	4	0·44	+0·02	*	*	*	*
	Stowell ℳ	46	25	42·7	31·3	36·8	− 5·0	2	37	5	0·86	?	12·1†	? †	15†	? †
6. SCOTLAND, W.	Laudale (Loch Sunart)	52	32	46·3	35·0	40·5	− 0·6	12	26	2	0·29	−1·19	*	*	*	*
	Glasgow	48	34	42·7	34·6	38·5	− 1·7	2	25	3	1·24	+0·69	20·9	+ 2·3	23	0
	Ardrossan	51	31	44·6	34·3	39·3	− 2·1	7	28	2	0·48	−0·07	*	*	*	*
	Glenlee Ⓢ	48	26	43·0	30·8	36·7	− 2·6	3	39	3	1·31	+0·45	*	*	*	*
	Douglas (Isle of Man)	48	29	45·1	34·9	39·9	− 1·7	9	26	2	0·40	−0·22	37·1	+ 9·1	45	+11
7. ENGLAND, N.W.	Newton Reigny	45	25	41·9	30·1	35·8	− 3·8	0	43	2	0·44	−0·06	16·5	− 7·4	20	− 9
	Stonyhurst	45	25	42·0	32·4	37·1	− 3·6	0	34	1	0·18	−0·60	13·3	− 9·0	16	−11
	Blackpool ℳ	50	30	42·8	33·3	37·9	− 3·2	2	30	1	0·14	−0·36	?	?	?	?
	Manchester	49	27	43·1	33·7	38·3	− 2·7	3	29	2	0·26	−0·31	*	*	*	*
	Liverpool Obsy. (Bidston)	51	30	45·3	34·9	39·9	− 2·0	9	26	3	0·08	−0·32	*	*	*	*
	Llandudno ℳ	45	32	43·6	35·7	39·4	− 3·9	4	21	2	0·13	−0·34	24·8	+ 3·3	30	+ 4
	Holyhead	46	35	44·7	37·6	41·1	− 2·0	8	17	3	0·52	+0·02	*	*	*	*
8. ENGLAND, S.W.	Llandovery	53	21	46·0	29·3	37·4	− 5·4	11	46	5	0·80	0·00	*	*	*	*
	Pembroke	49	33	46·4	36·1	41·1	− 1·8	12	23	2	0·22	−0·29	37·1	+ 7·3	45	+ 8
	Arlington (N. Devon)	47	26	43·4	31·4	37·2	− 4·4	4	37	3	0·59	−0·20	*	*	*	*
	Cullompton ℳ	49	24	45·1	30·6	37·6	− 5·0	9	40	4	0·59	+0·04	14·3	−13·5	17	−17
	Falmouth	48	33	45·8	35·6	40·6	− 3·2	11	24	3	0·59	−0·18	28·4	− 1·5	34	− 3
	Plymouth	53	29	48·1	34·2	40·9	− 3·4	17	30	1	0·25	−0·34	30·0	− 0·8	36	− 1
	Prawle Point	49	31	45·9	33·9	39·7	− 3·2	11	30	3	? 0·07	? −0·35	*	*	*	*
9. IRELAND, N.	Malin Head	47	35	44·1	38·3	41·1	− 1·4	6	14	3	0·33	?	*	*	*	*
	Londonderry	53	35	47·4	36·9	42·0	− 0·8	15	14	5	0·73	+0·13	*	*	*	*
	Mullaghmore	50	37	45·9	38·4	42·0	− 1·1	11	10	4	0·20	−0·44	*	*	*	*
	Belmullet	50	37	46·7	39·1	42·3	− 2·1	18	8	4	0·86	?	*	*	*	*
	Markree Castle	56	32	47·9	33·9	40·7	− 1·1	17	31	4	0·14	−0·41	29·5	+ 5·7	36	+ 7
	Brookeborough	53	30	46·7	33·7	40·0	− 0·8	13	31	3	0·33	−0·29	*	*	*	*
	Armagh	52	30	47·3	33·6	40·3	− 0·9	15	32	4	0·10	−0·39	26·1	+ 4·4	31	+ 4
	Donaghadee	50	31	47·4	37·3	42·2	− 0·1	21	13	3	0·47	0·0	*	*	*	*
	Edgeworthstown	53	30	47·1	33·0	39·8	− 1·1	14	33	3	0·13	−0·49	*	*	*	*
10. IRELAND, S.	Dublin	49	32	47·0	33·6	41·5	− 2·1	14	20	4	0·19	−0·30	29·5	+ 2·7	36	+ 3
	Parsonstown	52	26	48·0	31·0	38·3	− 3·2	17	41	3	0·23	−0·30	2·5	−24·4	3	−29
	Kilkenny	51	30	47·7	35·0	41·2	− 1·8	16	27	3	0·14	−0·35	*	*	*	*
	Waterford	50	29	47·9	34·6	41·1	− 3·0	17	29	2	0·11	−0·58	*	*	*	*
	Roche's Point	50	33	48·4	36·4	42·2	− 2·5	25	16	3	0·54	−0·31	*	*	*	*
	Valencia	52	35	49·7	37·7	43·5	− 2·2	29	12	3	0·64	−0·29	34·2	+ 3·4	41	+ 5
	Killarney	51	27	48·5	32·7	40·4	− 3·9	18	36	4	0·79	?	*	*	*	*
	Foynes	51	31	48·4	35·6	41·8	− 1·9	18	25	2	0·64	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	49	38	46·9	40·6	43·7	− 2·2	18	4	3	0·47	−0·07	*	*	*	*
	Jersey	54	32	48·0	37·7	42·7	− 2·2	23	12	3	0·39	−0·13	38·1	+ 3·4	46	+ 4

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

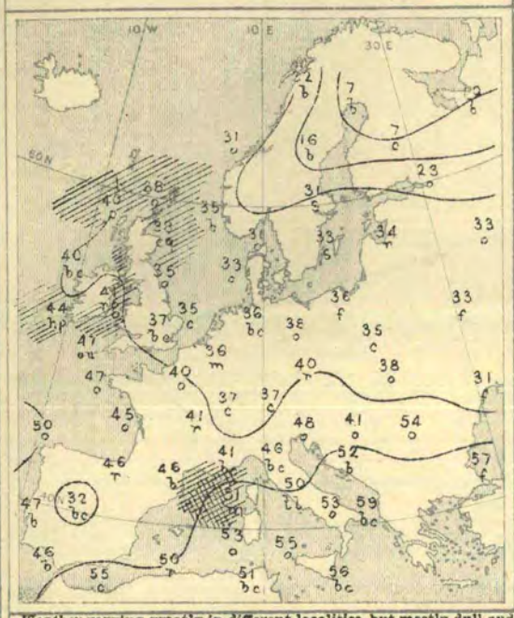
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

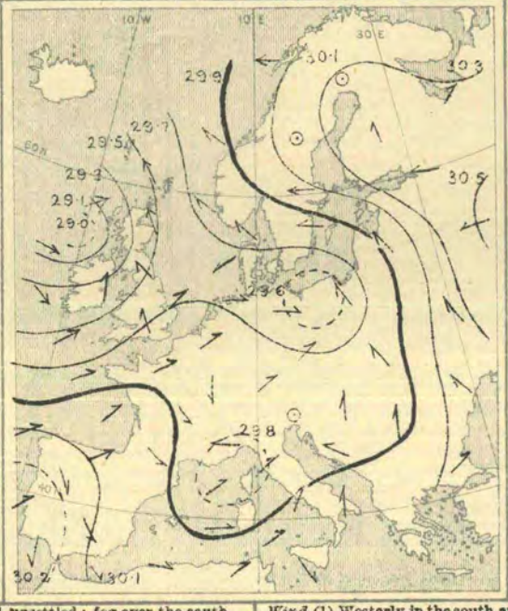
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 15th March.

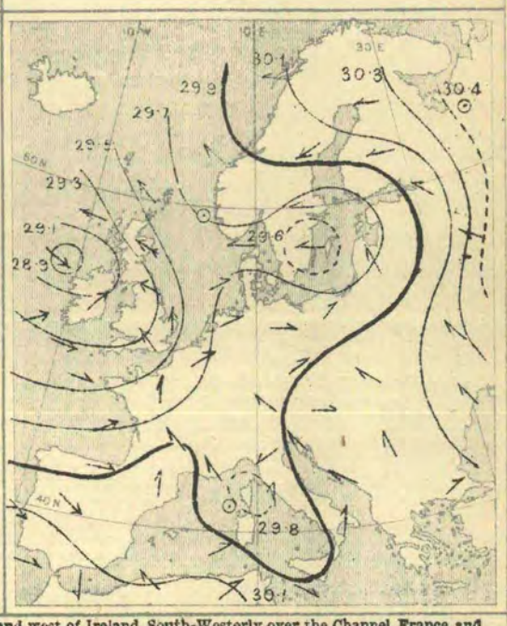
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 8 p.m.



Weather varying greatly in different localities, but mostly dull and unsettled; fog over the south of Russia, rain on the west coasts of our Islands, as well as over the Baltic Provinces and some parts of France, snow in Denmark and the south of Sweden, thunderstorm at Rome. Fine in south-east England, as well as the northern parts of Scandinavia and Russia and the southern parts of Europe. Rain later in many parts of nearly all European countries and in western Algeria; amounts reported large in many places.

Temperature highest, 59° at Brindisi, 56° at Malta, and 55° at Oran and Palermo; above 50° at nearly all the Mediterranean stations. Lowest, 7° at Haparanda and Kuopio, 10° at Archangel, 12° at Uleaborg, and 16° at Herndsand; as low as 32° in some of the central parts of England, France, and Spain. Daily maxima below 45° over a considerable portion of the United Kingdom, but thermometer rising to between 50° and 55° at most of the French, Italian, and Spanish stations, to 61° at Barcelona, 63° at Algiers, and 68° at Brindisi.

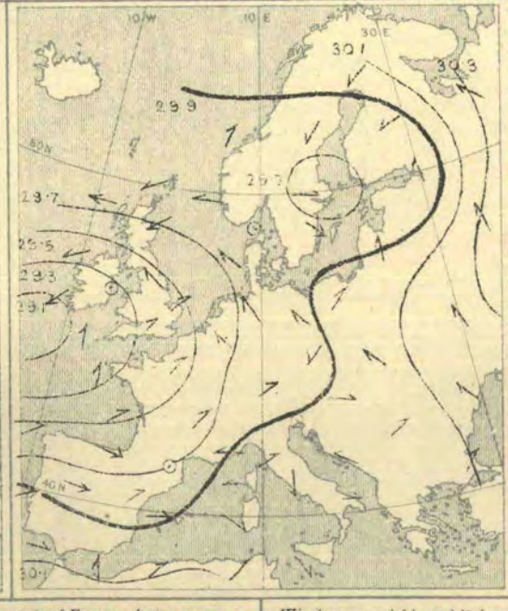
Wind (1) Westerly in the south and west of Ireland, South-Westerly over the Channel, France, and the north of Spain, Southerly over England, and South-Easterly in Scotland and the west of Norway; strong in force on the western and northern coasts of our Islands; (2) South-Westerly over the central and southern parts of Germany, South-Easterly over the west and south of Russia, Easterly over Finland and the south of Sweden, and North-Easterly in Zealand; (3) South-Westerly or Southerly in Italy and North-Westerly or Northerly in the south of France. Subsequently increasing to a gale from varying directions on many parts of our own coasts.

Barometer highest, 30·2 ins. to 30·5 ins. in a large anticyclone lying over Russia, 30·0 ins. to 30·2 ins. in another system lying over the south-west of Spain. Lowest, 29·0 ins. and less in a depression lying off the north of Ireland, 29·6 ins. and less in another disturbance lying over north Germany, 29·8 ins. and less in a third lying off the south of France. Depression off our north-west coasts remaining almost stationary throughout day, but moving southwards at night.

Monday, 16th March.

Temperature and Weather. 8 a.m.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

Weather very unsettled over all but the south-eastern and eastern parts of Europe, sky overcast or cloudy almost everywhere, rain falling in many parts of the British Islands and France, snow over Finland and Sweden. Much fog prevalent over south-eastern Europe and in Poland. Very heavy rain at Leith during day and smaller quantities on our north-eastern and western coasts generally; very heavy falls in the Riviera and Brittany, considerable quantities at several other French and some Spanish stations.

Temperature risen decidedly over Finland, changed little and irregularly elsewhere. Morning readings ranging between 50° to 58° at many of the extreme southern stations, 49° at Constantinople, 58° at Brindisi, 55° at Malta; exceeding 40° over Spain, France, Italy, and the southern parts of our Islands, lower elsewhere. Lowest, 3° Fahr. at Archangel, 22° at Haparanda, 28° at Uleaborg, Kuopio, and Herndsand, above 30° elsewhere; reaching 60° over the southern shores of the Mediterranean and exceeding 50° over the southern parts of France and in Germany during day, but remaining below that value in our Islands.

Wind very variable and light over eastern and south-eastern Europe, variable and moderate to a gale in force in the west and north. Two cyclonic circulations—one round a depression off the south of Ireland, the other round a shallower one over the Gulf of Bothnia near Stockholm. The North-Easterly wind in the far north and west blowing strongly in some places—a gale over Scotland and a strong squally breeze over Ireland. The South-Westerly to Westerly wind in France blowing freshly. Gale moderating in north of Scotland later.

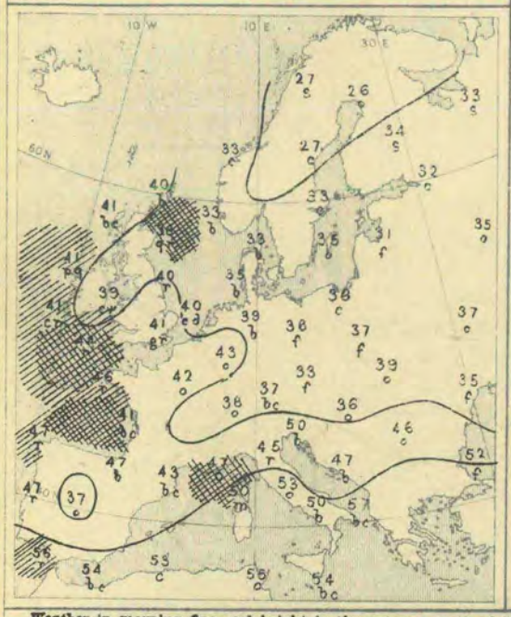
Barometer highest, 30·4 ins. to 30·6 ins. over Russia, 30·0 ins. and more over Algeria, 29·9 ins. and more over Lapland and a good deal of north Germany. Lowest, 29·1 ins. and less in a depression off the south of Ireland, 29·7 ins. and less in another over the Gulf of Bothnia. Depression in south of Ireland moving south-eastwards towards Brittany later, that over the Gulf of Bothnia filling up: barometer rising all over the United Kingdom.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons

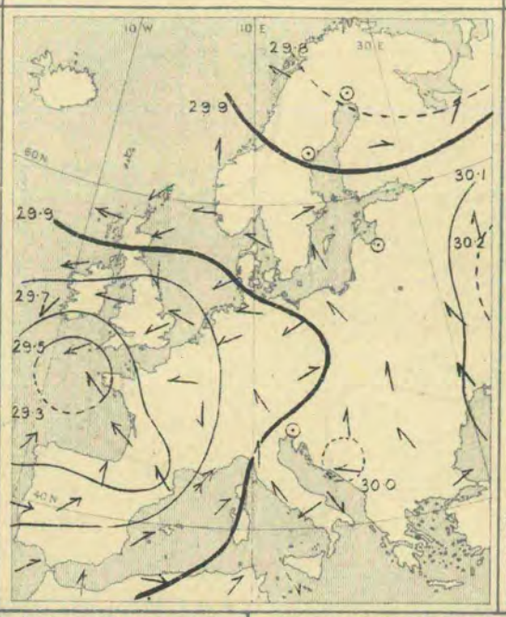
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 17th March.

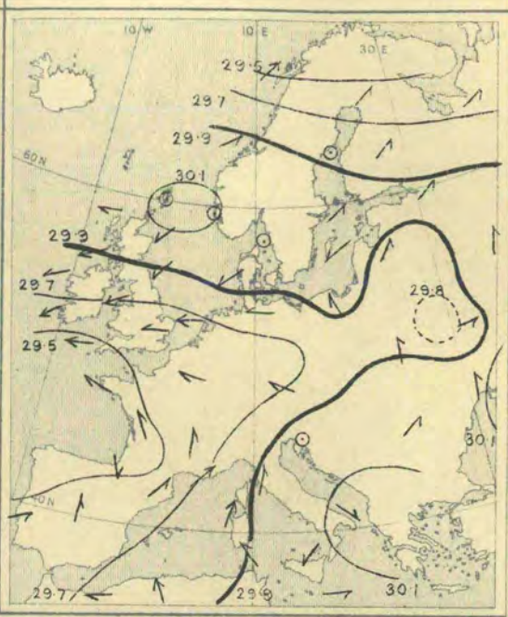
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright in the extreme north of Scotland, as well as some stations over southern, south-eastern, and central Europe, very unsettled elsewhere; rain falling generally in Portugal, the north-west of France, and the south of our Islands, locally in many other places; snow over northern Europe. Fog still prevalent on the shores of the Black Sea, also in Germany, Poland, and Riga. Slight rain falling continuously in many parts of our southern counties later and unusually heavy falls in the south of France (2·8 ins. at Nice, 3·4 ins. at Monaco); thunder occurring frequently at Lyons, Clermont, and in vicinity of Nice.

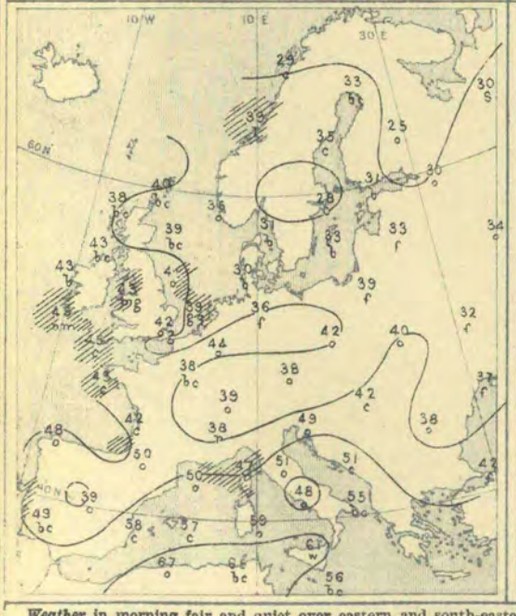
Temperature not changing much except over northern Russia, but tending to rise in the extreme south; morning readings exceeding 50° over all the southern parts of the Mediterranean and at San Fernando, and exceeding 40° over western Europe as a whole; lower elsewhere, but above the freezing point, except in the far north. Lowest, 25° at Haparanda, 26° at Uleaborg, 27° at Bodö, Hernösand, and Faerder. Rising during day to 70° and more in Algeria, to 60° and more over the south of Italy and at Trieste, to 50° and more over France and Germany, as well as at Jersey and Cambridge, but not exceeding 48° at any other station in our Islands.

Wind very light and variable over northern, eastern, and south-eastern Europe. Fresh Westerly to Southerly over Spain, South-Easterly over Brittany, Easterly to North-Easterly over the United Kingdom, and still blowing strongly on our western and northern coasts. Moderating in latter regions during the day and falling calm in the Shetlands, but beginning to blow a gale from the South-Westward over the northern parts of Norway and becoming South-Westerly over Lapland and Finland generally.

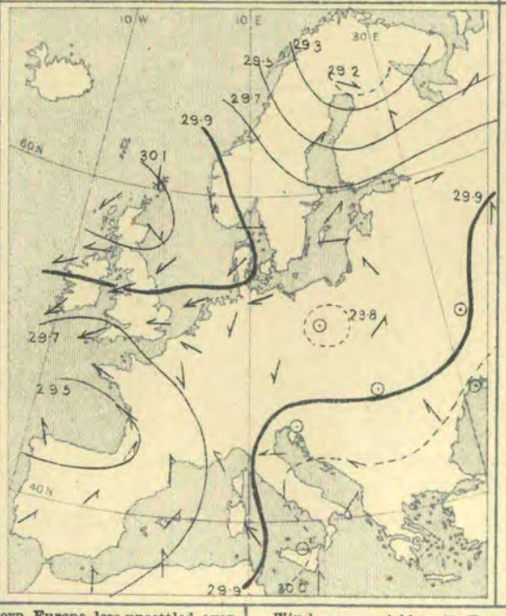
Barometer highest, 30·3 ins. and upwards in an anticyclone lying over Russia, 30·0 ins. and upwards in a "col" extending thence over the Baltic and south of Scandinavia to the extreme north of Scotland. Lowest, 29·3 ins. and less in a depression lying over the northern part of the Bay of Biscay, 29·8 ins. and less over northern Russia. Depression over Bay of Biscay filling up gradually during day and moving slowly southwards; new disturbance beginning to advance over Lapland from the Northward.

Wednesday, 18th March.

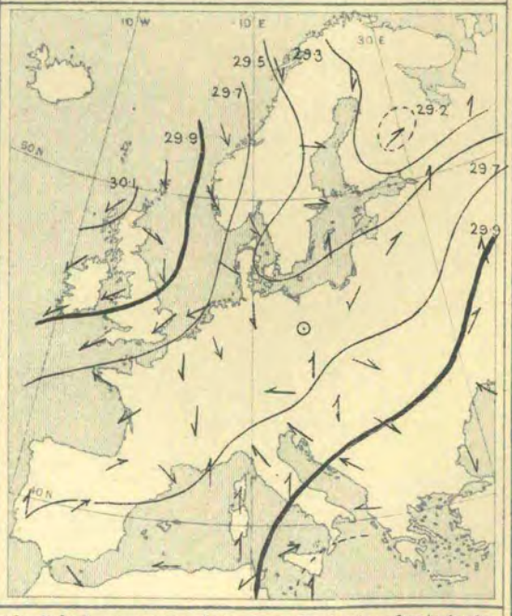
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fair and quiet over eastern and south-eastern Europe, less unsettled over western Europe generally than of late, fine and bright over Sweden, the Gulf of Finland, and the northern parts of the United Kingdom, as well as at the Channel stations and the north of France; very foggy over Germany, the Baltic Provinces, and the Sound. Much rain still falling in the south of France, the fall during the day amounting to 1·6 ins. at Nice and 1·4 ins. at Monaco. Halo at Valencia (Ireland) in evening.

Temperature rising in the far south, changing little and irregularly elsewhere. Morning readings considerably above 60° on the northern coast of Algeria and at Palermo, and above 50° at most of the Mediterranean and Adriatic stations, but below that value in the Riviera and south of France generally; exceeding 40° over Ireland, England, and the west of France, lower as a whole elsewhere. Lowest, 25° at Kuopio, 26° at Helsingfors, 30° at St. Petersburg and Archangel, 31° at Hangö. Rising to a little above 50° over our Islands later, and to between 55° and 60° in several parts of France, to 68° at Brindisi, considerably above 70° at Palermo and over Algeria, and to 82° at La Calle.

Wind very variable; (1) Easterly, light to strong, over Ireland and England, moderate in the Channel, Southerly over Algeria, Spain, and the south-west of France; (2) Westerly to North-Westerly in Norway, South-Westerly over Sweden and Finland; (3) light and variable in most other places, but moderate Easterly over Corsica and the Gulf of Genoa. Blowing a gale from North-North-West in the west of Norway later, becoming North-Westerly on the Scotch coasts, and strong from North over the east of England. Northerly at Nice, Southerly at Leghorn.

Barometer highest, (1) 30·1 ins. and more to 29·9 ins. in an anticyclone lying over the northern parts of the British Islands and North Sea; (2) 30·0 ins. and more to 29·9 ins. over the Black Sea, south-eastern Europe, and the south-eastern parts of the Mediterranean generally. Lowest, 29·2 ins. and less in a depression over Lapland and 29·5 ins. and less in another over the southern part of the Bay of Biscay; a very shallow local disturbance near Breslau. Depression in far north moving quickly to the southwards later and shallow disturbance forming over France. Barometer falling all over the North Sea and Baltic, beginning to rise in north-west of Norway.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

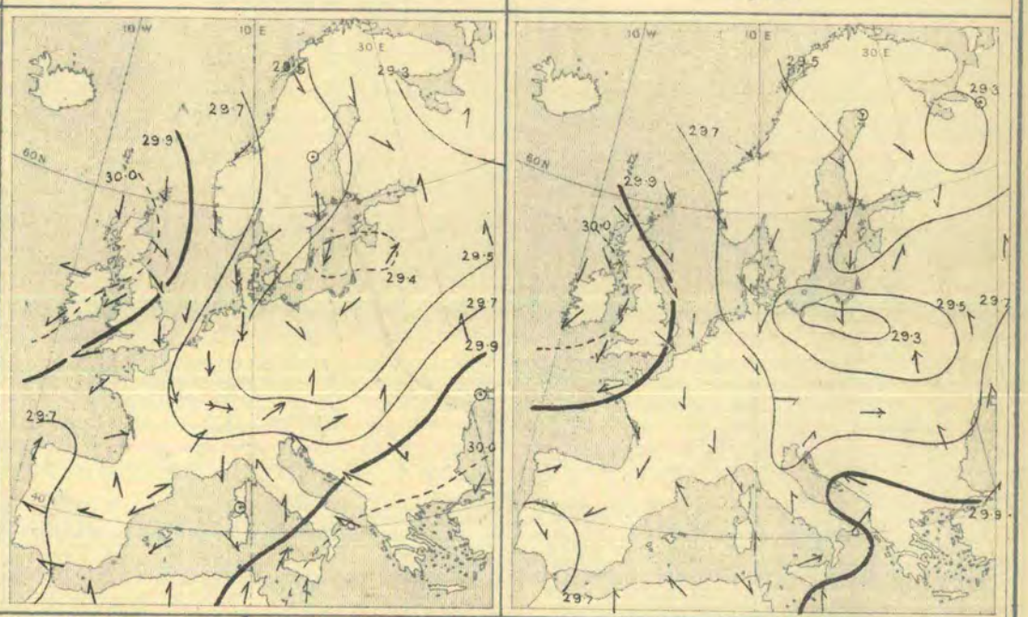
Thursday, 19th March.

Temperature and Weather. 8 a.m.

Weather in morning very foggy over the south of Russia and in many parts of Germany, fair generally over the Mediterranean, changeable and unsettled over western and north-western Europe, though temporarily fine over Scandinavia and north of Scotland; rain at several French stations, snow at Münster and Wisby. Slight rain or snow in the north, north-west, and east of our Islands later, and also over our eastern counties; rather larger quantities in Germany, and very large falls at San Fernando and Palermo.

Temperature risen decidedly over Italy, Austria, and south Germany, changed little and irregularly elsewhere. Morning readings exceeding 60° at Palermo and La Calle, exceeding 50° on the eastern, southern, and western shores of the Mediterranean generally, as well as in the north of Spain; lower elsewhere. Below 40° in many parts of our Islands, central Europe, and Russia, and as low as 2° Fahr. at Uleaborg, 10° at Haparanda, 19° at Hernösand, 23° at Stockholm, 27° at Archangel, and 29° at Hangö, the Scaw, and Faerder. Not touching 50° at any of our own stations later, but rising to upwards of 60° in the south of France and Italy and to upwards of 80° at Palermo and in some parts of Algeria.

Barometer and Wind. 8 a.m. and 6 p.m.

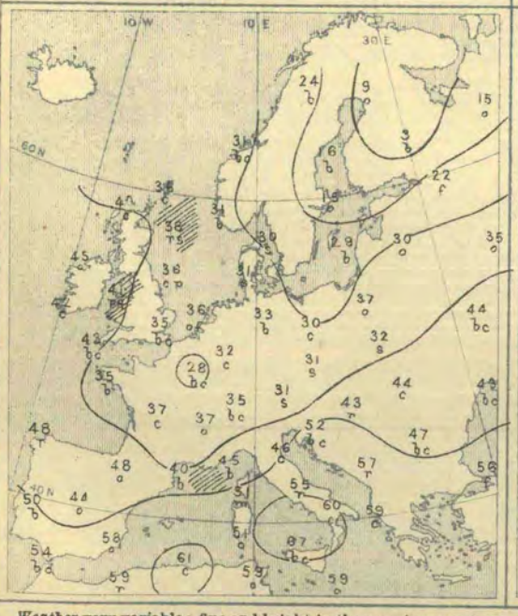


Wind light to strong from the Northward over the whole of north-western Europe; very variable elsewhere, but mainly Westerly over the eastern half of France, South-Westerly to Southerly in south Germany and Austria. Fresh Southerly winds over Algeria and Sicily, South-Easterly over Italy and the Adriatic, Northerly wind becoming strong at Wisby later, South-Westerly in the north of Italy, and freshening from Southward over Hungary and the south of Russia.

Barometer highest, 30·1 ins. to 29·8 ins. over and to the north-westward of the British Islands, 30·0 ins. to 29·8 ins. over southern and south-eastern Europe. Lowest, about 29·2 ins. over northern Russia, 29·4 ins. and less in a depression over the Baltic, 29·5 ins. and less over Germany, and 29·7 ins. and less over Portugal and neighbouring parts of the Atlantic. Falling over Norway and Scotland later and new depression forming over north Germany, while that over the Baltic filled up partially. Rising over France and the south of England.

Friday, 20th March.

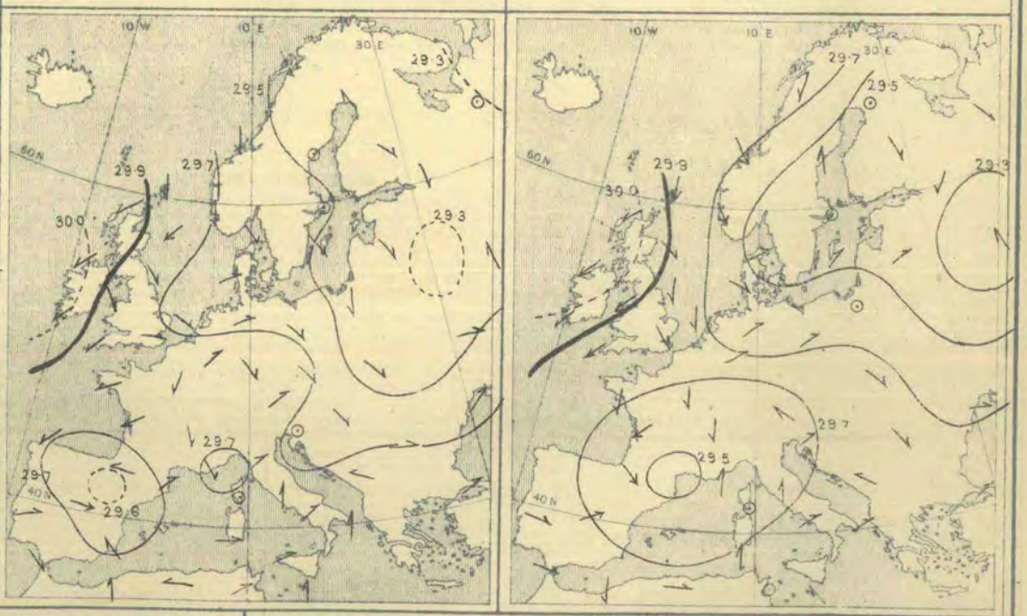
Temperature and Weather. 8 a.m.



Weather very variable; fine and bright in the morning over the Baltic and many parts of Scandinavia, as well as in the south-west of our Islands, the north-west of France, and at several Mediterranean stations; cloudy or overcast in many other places, snow showers on our north-east coasts and in many parts of Germany, rain at several stations in western Algeria, Italy, Austria, and at Holyhead. Slight snow later over all the northern and eastern parts of the Kingdom, considerable rain in south of France, and smaller quantities locally in many other parts of the Continent.

Temperature low for the time of year and decidedly lower over France and Germany than on Thursday. Morning reading exceeding 60° at Naples, Palermo, and Algiers, exceeding 50° at the more southern stations only; below 40° over the greater part of the British Islands and France, and still lower elsewhere. Lowest of all, 2° at Uleaborg, 3° at Kuopio and Hangö, 9° at Haparanda, 15° at Archangel, and below the freezing point over the Baltic and Scandinavia. Touching 50° to 52° on our extreme south-western coasts later, 64° at Perpignan, and 70° over Algeria and the extreme south of Italy. Not reaching 40° over Germany.

Barometer and Wind. 8 a.m. and 6 p.m.



Wind Northerly over Scandinavia, Scotland, and Ireland, and blowing strongly at many of the Scotch and Irish stations; Easterly over the Bay of Biscay; Westerly, moderate to strong, over Spain and the south-east of our Islands, South-Westerly over the Netherlands, North-Westerly over Germany, variable elsewhere. Veering Northwards in the east of England later and backing to Northward in the south-west of France. Becoming Northerly and freshening over England later.

Barometer highest, 30·0 ins. and more to 29·8 ins. over the northern and western parts of the British Islands and the neighbouring parts of the Atlantic, and exceeding 29·8 ins. over the extreme south-east of Europe. Lowest, 29·4 ins. and less over northern and central Russia (29·3 ins. at Archangel), about 29·6 ins. over the north-east of Spain, and 29·7 ins. and less over the Riviera and Gulf of Genoa. Spanish depression moving north-eastwards later to France, other disturbance being developed over Sweden and Russia.

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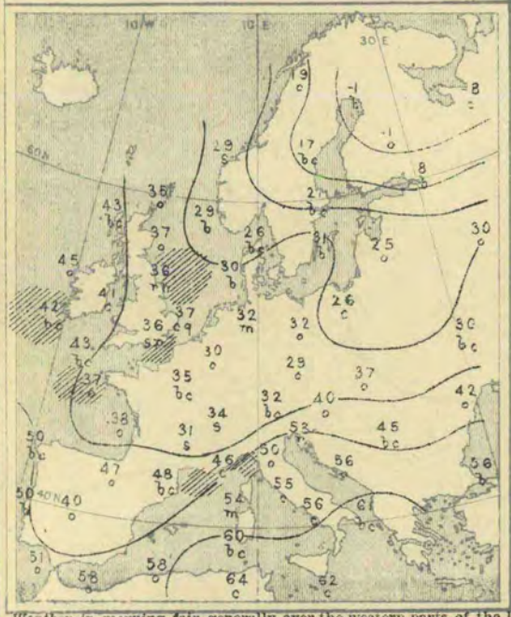
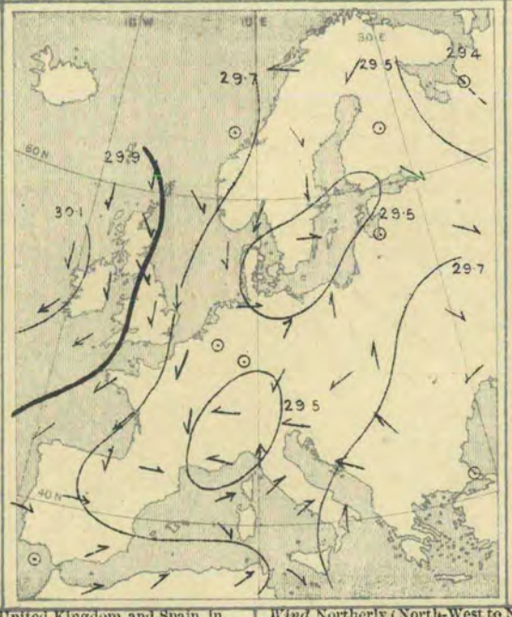
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 21st March.

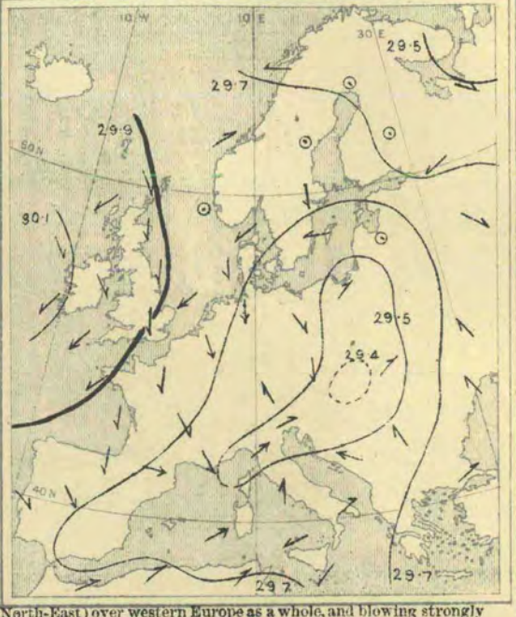
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fair generally over the western parts of the United Kingdom and Spain, in Algeria and south-eastern Europe. Changeable elsewhere, with snow or "graupel" showers at several of the English stations, in the east of France, and at Uleaborg, heavy rain at Trieste and Turin. Snow showers slight on the shores of the North Sea and over many parts of our Islands during day, and rain over Austria and Italy, but rainfall considerable at Trieste.

Temperature low generally, except in the far south. Morning readings exceeding 50° on the western, southern, and eastern shores of the Mediterranean, and exceeding 60° at Brindisi, Malta, and La Calle; much lower elsewhere. Below 40°, except at the Atlantic and Irish Sea stations, and as low as −8° Fahr. at Archangel, −1° at Haparanda and Kuopio, +8° at St. Petersburg, and below the freezing point over all the northern and central parts of Russia, as well as over the greater part of Germany. Rising somewhat (to above 40°) over north-western Europe later, to between 50° and 60° in the south of France, and to 70° and more over Algeria and the south of Italy.

Wind Northerly (North-West to North-East) over western Europe as a whole, and blowing strongly over the Skager Rack and North Sea, freshly over England and the Channel; very variable over northern, eastern, and central Europe, but mainly Southerly over the Baltic Provinces and western Russia. Cyclonic circulation of fresh winds over the south of France and Gulf of Genoa. Southerly wind becoming strong over north of Italy later, but Northerly wind beginning to moderate over the North Sea and England.

Barometer highest, 30·1 ins. and more to 29·9 ins. over all the western parts of our Islands and neighbouring parts of the Atlantic, exceeding 29·9 ins. over western Algeria, and exceeding 29·8 ins. over the Black Sea and southern Russia. Lowest, 29·4 ins. and less over the north-east of Russia, and 29·5 ins. and less in two depressions—one over the Baltic, the south of Sweden, and north-west Germany, the other over the Gulf of Genoa and south-east of France. Rising over northern, falling over central Europe later. Movements of depressions doubtful.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze: and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The weather experienced during this week was of two distinct types. *Firstly*, that in which pressure was highest over Russia and lowest over our Islands and the neighbouring parts of the Atlantic; this lasted from Sunday to Tuesday, and the most important depression which appeared was that which at 8 a.m. on Sunday (15th) lay off our north-western coasts, and moving southwards, reached the south-west of Ireland on the following morning and the north of Spain on Wednesday. During its progress the Westerly and South-Westerly winds gave way and colder Easterly breezes spread over western Europe from the Northward. *Secondly*, that in which pressure was highest over the Atlantic and the north-western and western parts of the United Kingdom, while it was lowest in depressions which appeared over northern, central, and southern Europe. In this period the dominant wind current was Northerly, temperature was very low for the time of year (especially at the close of the period), and snow showers fell in many places. Rain or snow has fallen, more or less, in all European countries during the week, and in several localities the falls have at times been large; thunder has occurred in some places.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 62.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	4·2	?	5	?	EASTBOURNE	13·9	?	17	?
OSWALDKIRK	17·7	?	21	?	TORQUAY	25·9*	?	31*	?
WORKSOP	12·8	−10·0	15	−12	ARLEY (County Cavan)	?	?	?	?
THURCASTON	12·7	− 8·0	15	− 9					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 12]. *Third Series.* WEEK ENDING SATURDAY, 28TH MARCH, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10*s.* 0*d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 68.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	48	24	42·5	32·4	37·3	3 below.	1	− 9	33	0	130	+51	426	+ 16
	1. SCOTLAND, EAST	53	27	44·7	32·6	38·5	2 below.	8	−10	34	+ 1	139	+19	481	+ 29
	2. ENGLAND, N.E.	53	30	45·8	34·6	40·0	1 below.	11	− 6	27	− 3	126	+10	467	+ 58
	3. ENGLAND, EAST	56	22	47·6	32·1	39·6*	2 below.	16	− 7	37	+ 4	142	+ 3	565	+104
	4. MIDLAND COUNTIES	55	19	47·4	33·2	40·1	2 below.	15	− 9	33	0	162	+ 6	530	+ 83
	5. ENGLAND, SOUTH	56	23	46·9	33·5	40·0	3 below.	14	−10	32	+ 6	136	−36	487	+132
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	48	32	44·3	35·6	40·1	1 below.	8	− 8	24	− 2	154	+31	334	+ 1
	7. ENGLAND, N.W.	52	28	45·7	35·5	40·5	2 below.	10	− 7	25	− 2	157	+36	337	+ 26
	8. ENGLAND, S.W.	54	32	47·3	36·5	41·8	2 below.	15	− 6	22	+ 1	131	−18	364	+ 93
	9. IRELAND, NORTH	54	29	46·3	35·4	40·7	2 below.	12	−11	25	+ 3	204	+26	305	+ 12
	10. IRELAND, SOUTH	54	29	43·7	37·1	42·8	2 below.	23	0	14	− 5	272	+20	255	+ 29
	— CHANNEL ISLANDS	53	31	48·5	39·0	43·6	2 below.	24	− 3	8	− 1	244	−12	159	+ 46

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 68.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	7	16	8 more.	61	0	14·6	+ 1·8	11	−10	13	−12	170	+ 12	22	+ 1
	1. SCOTLAND, EAST	5	5	0 (average)	34	−13	4·4	− 2·8	20	− 4	23	− 7	230	+ 23	29	+ 2
	2. ENGLAND, N.E.	5	3	2 less.	38†	− 5	3·3	− 1·8	27	+ 5	31	+ 4	227	+ 52	28	+ 6
	3. ENGLAND, EAST	5	3	1 less.	39	− 4	3·2	− 1·9	39	+ 9	45	+ 9	264	+ 56	32	+ 6
	4. MIDLAND COUNTIES	5	3	2 less.	33	− 8	3·3	− 2·8	30	+ 5	35	+ 5	245	+ 58	30	+ 7
	5. ENGLAND, SOUTH	5	6	1 more.	35	− 6	5·2	− 1·0	33	+ 6	39	+ 5	251	+ 60	30	+ 7
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	6	9	2 more.	44	− 7	8·4	− 4·5	20	− 6	23	− 7	217	+ 47	27	+ 5
	7. ENGLAND, N.W.	5	5	0 (average)	31	−15	3·7	− 3·8	21	− 3	24	− 5	237	+ 63	29	+ 7
	8. ENGLAND, S.W.	5	5	1 less.	34	−13	5·8	− 4·0	31	− 1	36	− 1	293	+ 69	34	+ 7
	9. IRELAND NORTH	6	8	3 more.	44	−10	4·5	− 3·7	15	− 9	18	−12	249†	+ 70	31	+ 8
	10. IRELAND, SOUTH	5	5	1 less.	36	−13	4·1	− 5·8	34	+ 5	40	+ 5	276	+ 57	33	+ 6
	— CHANNEL ISLANDS	6	3	2 less.	33	−15	5·5	− 2·5	46	+ 9	53	+10	373	+100	44	+11

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been in a cold and unsettled condition generally, with frequent showers of snow, sleet, or cold rain. Over the greater part of England and in the south of Ireland the showers were, as a rule, slight, and many intervals of sunshine were experienced. Sharp thunderstorms occurred on Thursday over many parts of England.

Temperature has continued below the mean, the deficit having ranged from 1° to 3°. The highest of the maxima, which were registered on the 25th over England and on irregular dates in Ireland and Scotland, ranged from 56° in "England E." and "S." to 48° in "Scotland N." and "W." The lowest of the minima were generally recorded either on the 22nd or 23rd, when the thermometer fell to 19° in the "Midland Counties," to 22° in "England E.," 23° in "England S.," and to between 24° and 31° in most other districts; in "Scotland W." and "England S.W.," however, temperature did not fall below 32°.

Rainfall has been more than the mean in the north and west of Scotland, the north of Ireland, and the south of England, and has just equalled the normal in the east of Scotland and north-west of England; in all other parts of the Kingdom there has been a slight deficit.

Bright Sunshine has been fairly prevalent over the greater part of England, the Channel, and the south of Ireland, but shows a decrease in most parts of Scotland and over northern Ireland. The percentage of the possible duration ranged from 53 in the "Channel Islands" and 45 in "England E." to 18 in "Ireland N." and 13 in "Scotland N."

Barometer and Wind.—At the commencement of the period the distribution of pressure was still anticyclonic and the wind light from the Northward. The high pressure soon gave way, however, depressions advanced to the north of Scotland from the Atlantic, and the wind over our Islands backed to the Westward and increased considerably in force. Towards the end of the week a depression, having its centre near the Shetlands, spread gradually in a Southerly and South-Easterly direction and caused strong winds and gales from between West and North-West at nearly all our stations.

* The corresponding value for the week ending March 14th should read "35·0," not "25·0."

† This value has been altered owing to the receipt of further information.

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213 370 4|91 1896

II.—DATA from which the SUMMARY on page 67 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ℌ	45	31	42·4	33·4	37·8	− 1·1	1	30	6	1·30	+0·71	*	*	*	*
	Stornoway	45	31	42·6	32·9	37·6	− 2·5	2	31	7	0·40	−0·40	15·0	−10·0	17	−12
	Wick	48	32	44·1	33·6	38·8	− 1·3	6	31	6	1·23	+0·80	*	*	*	*
	Lairg ℌ	48	28	42·2	30·6	36·2	− 2·6	1	39	7	1·68	+1·06	*	*	*	*
	Glencarron ℌ	44	25	40·3	30·8	35·4	− 3·0	0	46	7	3·27	+1·90	*	*	*	*
	Fort Augustus ℌ	47	24	43·0	31·4	37·0	− 3·3	3	36	7	1·41	+0·81	?	?	?	?
	Fort William ℌ	45	32	43·2	34·2	38·6	− 2·7	3	27	7	1·66	+0·49	7·3	?	8	?
1. SCOTLAND, E.	Nairn	51	29	44·7	33·3	38·8	− 1·3	8	31	6	0·57	+0·21	*	*	*	*
	Aberdeen	48	31	45·1	34·0	39·4	− 1·2	9	29	5	0·65	+0·13	21·6	− 6·2	25	− 7
	Braemar ℌ	42	27	39·6	30·7	35·0	− 2·2	0	49	6	0·81	+0·24	23·2 †	? †	27†	?†
	Ochtertyre ℌ	53	29	47·0	31·3	39·0	− 1·6	14	40	5	0·29	−0·30	*	*	*	*
	Leith	49	32	47·0	33·6	40·1	− 2·4	14	32	3	0·47	+0·12	*	*	*	*
	Marchmont ℌ	49	28	44·9	32·6	38·6	− 1·2	8	34	4	0·34	−0·24	18·8	?	22	?
2. ENGLAND, N.E.	Alnwick Castle	48	33	44·1	35·6	39·7	− 0·7	6	23	4	0·41	−0·11	*	*	*	*
	Durham	51	32	46·1	34·1	39·9	− 0·9	11	29	4	0·15	−0·36	33·7	+ 8·0	39	+19
	Shields	52	33	46·6	34·7	40·5	− 0·7	13	28	5	0·17	−0·24	*	*	*	*
	Scarborough ℳ	50	30	45·2	34·1	39·5	− 2·4	9	29	5	0·45	0·00	*	*	*	*
	York	53	31	48·0	33·7	40·6	− 1·5	17	32	5	0·14	−0·26	23·2	− 1·3	27	−1
	Spurn Head	52	34	44·9	35·1	40·0	− 1·4	8	34	5	0·26	−0·03	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	55	23	47·9	32·4	39·9	− 2·4	17	36	6	0·37	0·00	32·4	+ 5·9	37	+ 7
	Yarmouth	53	26	43·9	31·6	37·6	− 3·4	5	37	5	0·37	−0·05	*	*	*	*
	Geldeston	56	24	47·4	32·0	39·5	− 3·0	15	37	4	0·39	+0·05	42·0	+10·2	49	+13
	Cambridge	56	22	50·3	31·6	40·7	− 2·1	23	40	5	0·28	−0·06	?	?	?	?
	Rothamsted	55	24	48·7	32·7	40·5	− 1·3	19	36	4	0·12	−0·28	42·3	?	49	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	54	26	48·9	35·3	41·9	0·0	19	27	4	0·26	−0·14	*	*	*	*
	Loughborough	54	30	49·1	33·7	41·2	− 1·6	20	33	5	0·30	−0·09	*	*	*	*
	Stamford (Ketton Hall)	55	23	49·0	33·3	40·9	− 1·5	20	34	4	0·25	?	*	*	*	*
	Cheadle ℳ	54	29	45·7	32·1	38·7	− 2·1	10	36	6	0·39	−0·12	*	*	*	*
	Churchstoke ℳ	52	30	45·5	33·6	39·4	− 1·6	11	31	7	0·49	−0·05	29·0	+ 2·0	33	+ 3
	Hereford ℳ	53	25	47·6	34·0	40·6	− 2·4	16	31	4	0·15	−0·25	*	*	*	*
	Cirencester	51	19	45·9	30·9	38·2	− 2·7	11	40	3	0·08	−0·39	25·7	− 1·7	30	− 2
	Oxford	53	27	47·6	32·3	39.7	− 3·3	16	36	3	0·05	−0·33	32·0	+ 3·7	37	+ 4
5. ENGLAND, S.	London	56	24	47·7	33·6	40·4	− 3·2	16	32	4	0·25	−0·12	28·1 †	+ 5·9†	33†	+ 7†
	Strathfield Turgiss ℳ	56	23	48·5	32·3	4 .2	− 2·6	18	37	3	0·43	+0·10	*	*	*	*
	Dungeness	49	25	45·9	33·6	39·6	− 2·8	11	31	5	0·61	+0·19	*	*	*	*
	Hastings (St. Leonards)	51	29	46·6	33·6	39·9	− 4·0	13	31	4	0·72	+0·27	37·9	+ 3·7	44	+ 5
	Southampton	53	26	48·0	33·9	40·7	− 3·3	17	31	5	0·61	+0·16	33·9	+ 1·5	39	+ 2
	Hurst Castle	50	26	46·3	34·0	40·0	− 3·3	12	30	5	0·34	−0·08	*	*	*	*
	Stowell ℳ	52	28	45·2	33·2	39·0	− 3·8	9	32	6	0·91	?	23·4 †	? †	27†	? †
6. SCOTLAND, W.	Laudale (Loch Sunart)	47	32	44·2	34·2	39·1	− 2·6	6	28	7	1·82	+0·42	*	*	*	*
	Glasgow	46	32	43·6	35·2	39·3	− 1·5	4	24	5	0·85	+0·32	13·2	− 7·5	15	− 9
	Ardrossan	46	33	45·0	36·6	40·7	− 1·2	8	20	5	0·54	+0·01	*	*	*	*
	Glenlee ℌ	48	33	45·6	35·1	40·2	+ 0·4	10	26	6	1·14	+0·31	*	*	*	*
	Douglas (Isle of Man)	48	34	45·4	37·0	41·1	− 0·8	10	19	5	0·31	−0·29	27·1	− 3·8	31	− 5
7. ENGLAND, N.W.	Newton Reigny	48	28	44·6	33·6	38·9	− 1·4	7	30	6	0·67	+0·19	21·4	− 4·6	25	− 6
	Stonyhurst	48	30	44·8	34·6	39·5	− 1·9	8	26	6	0·98	+0·27	21·6	− 2·4	25	− 3
	Blackpool ℳ	47	30	44·4	33·5	38·8	− 3·0	7	30	1	0·23	−0·26	?	?	?	?
	Manchester	51	29	45·1	34·0	39·4	− 2·4	9	29	6	0·69	+0·17	*	*	*	*
	Liverpool Obsy. (Bidston)	52	30	46·7	35·3	40·8	− 0·9	13	25	5	0·41	+0·01	*	*	*	*
	Llandudno ℳ	50	35	47·4	38·4	42·3	− 1·1	21	10	5	0·50	+0·04	20·1	− 2·9	23	− 4
	Holyhead	50	36	47·0	39·3	43·0	− 0·7	18	8	3	0·10	−0·39	*	*	*	*
8. ENGLAND, S.W.	Llandovery	53	32	48·4	33·7	40·8	− 2·3	18	32	7	0·97	+0·21	*	*	*	*
	Pembroke	48	35	46·3	38·7	42·4	− 0·7	17	9	6	0·26	−0·24	32·2	− 0·2	37	− 1
	Arlington (N. Devon)	50	32	45·6	34·7	40·0	− 2·0	10	27	5	0·39	−0·35	*	*	*	*
	Cullompton ℳ	53	33	47·6	35·8	41·5	− 1·7	16	24	5	0·32	−0·24	30·3	+ 0·3	35	0
	Falmouth	52	36	48·0	38·5	43·1	− 0·9	22	10	4	0·68	−0·08	34·9	+ 2·6	41	+ 3
	Plymouth	54	35	49·0	37·9	43·3	− 1·6	26	11	4	0·23	−0·36	25·8	− 7·2	30	− 8
	Prawle Point	53	33	46·4	36·3	41·3	− 2·1	12	23	6	0·57	+0·11	*	*	*	*
9. IRELAND, N.	Malin Head	48	32	44·1	36·3	40·1	− 2·8	6	21	7	0·68	?	*	*	*	*
	Londonderry	54	32	46·7	35·9	41·1	− 2·2	13	23	7	1·27	+0·68	*	*	*	*
	Mullaghmore	49	35	46·0	37·9	41·8	− 1·9	11	16	7	0·95	+0·35	*	*	*	*
	Belmullet	50	29	46·1	37·1	41·1	− 4·3	11	17	7	1·34	?	*	*	*	*
	Markree Castle	50	32	46·5	34·3	40·2	− 2·3	13	29	7	1·14	+0·59	17·2	− 8·6	20	−11
	Brookeborough	50	31	45·2	33·6	39·2	− 2·4	9	30	7	0·84	+0·23	*	*	*	*
	Armagh	51	31	47·0	34·1	40·4	− 1·4	14	30	6	0·43	−0·05	11·8	−12·0	14	−14
	Donaghadee	51	30	47·1	36·6	41·7	− 1·2	14	21	5	0·50	+0·04	*	*	*	*
	Edgeworthstown	51	30	48·3	33·1	40·5	− 1·1	18	34	5	0·35	−0·25	*	*	*	*
10. IRELAND, S.	Dublin	52	32	48·5	3 ·6	42·4	− 1·7	15	25	4	0·30	−0·19	35·4	+ 5·9	41	+ 7
	Parsonstown	52	29	48·3	34·7	41·3	− 1·7	18	29	4	0·36	−0·17	25·3	− 3·7	29	− 5
	Kilkenny	52	32	48·3	35·4	41·7	− 1·8	18	26	6	0·52	+0·03	*	*	*	*
	Waterford	54	33	49·6	37·4	43·3	− 1·1	28	13	4	0·42	−0·24	*	*	*	*
	Roche's Point	52	35	49·1	38·1	43·5	− 1·4	27	11	4	0·10	−0·72	*	*	*	*
	Valencia	52	36	49·9	39·6	44·6	− 1·4	28	7	7	1·00	+0·12	42·2	+ 8·9	49	+11
	Killarney	51	32	48·5	36·4	42·3	− 2·3	26	16	6	0·94	?	*	*	*	*
	Foynes	50	35	47·7	38·8	43·1	− 0·8	21	9	7	0·63	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	53	38	48·0	40·4	44·0	− 2·0	21	4	6	0·24	−0·29	*	*	*	*
	Jersey	52	31	49·0	37·6	43·1	− 2·3	26	12	5	0·34	−0·17	45·8	+ 8·5	53	+10

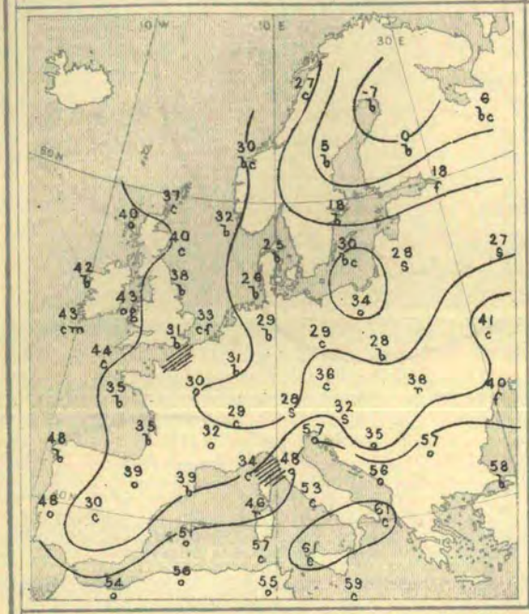
Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

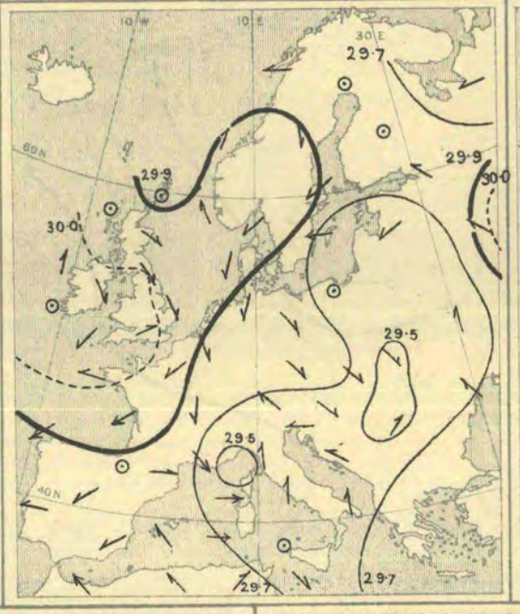
† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 22nd March.

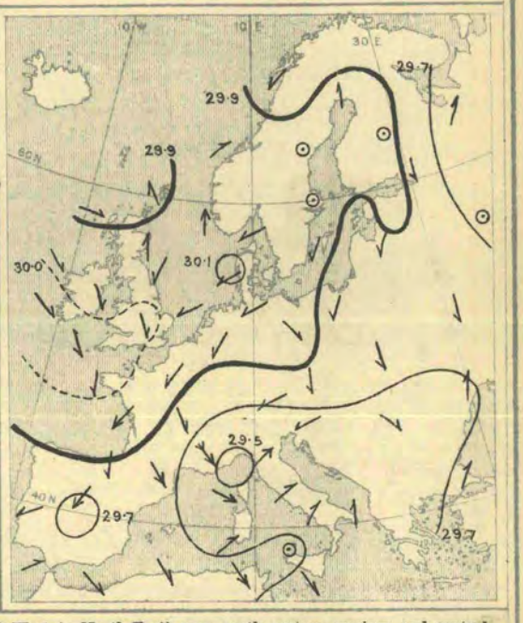
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 8 p.m.



Weather in morning fine over north-western and northern Europe generally and in most places clear and bright; much less fair in the east and south. Snow falling over central Russia and the Baltic Provinces, as well as in Austria, rain at Lemberg, Turin, and Sanguinaire, and the sky cloudy and unsettled over the southern parts of the Mediterranean generally. Slight rain or snow at several of our north-western and western stations later, as well as in some parts of France and Germany.

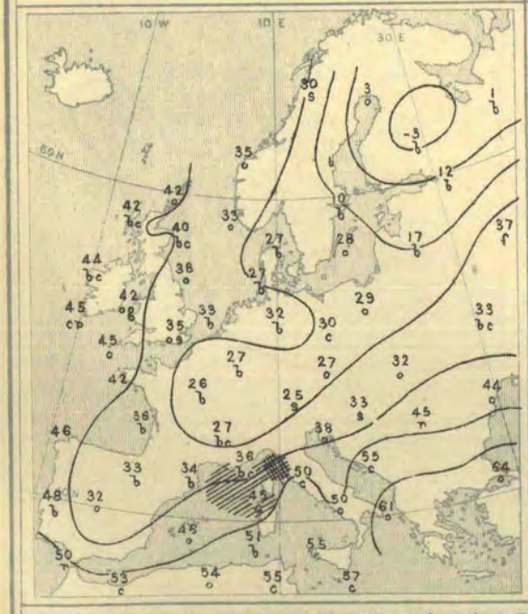
Temperature low generally. Morning readings exceeding 60° at Brindisi and Palermo only; below 50° on the Portuguese coast and the west and south-west of our Islands, below 40° over the other parts of western Europe, and below the freezing point in many places. Lowest, −7° at Haparanda, 0° at Kuopio, and below 10° over the north of Sweden, Finland, and northern Russia. Frost prevailing over many parts of central Europe, France, and England, and thermometer as low as 34° at Nice, 35° at Perpignan. Some recovery over our Islands later (especially in north), but weather very cold for the time of year in most places.

Wind mainly Northerly (North-West to North-East) over north-western, western, and central Europe, but light and variable in several localities. Strong North-Westerly (mistral) over the south of France, Westerly in Corsica, Southerly over northern Italy, light Southerly over Russia also and in Algeria. Backing to Westward in the north of Scotland later and varying much over England. No great change elsewhere, but "mistral" increasing in strength.

Barometer (1) highest, 30·0 ins. and more to 29·9 ins. over the British Islands, North Sea, the south of Scandinavia, and north of France; (2) 30·0 ins. to 29·3 ins. over central Russia. Lowest, 29·5 ins. and less in a depression over the Riviera and Gulf of Genoa, and in another over Hungary, 29·7 ins. and less in a third over the North Sea, and less low in several other local systems over Norway and the British Islands. Falling a little in the north and west of our Islands later, changing irregularly elsewhere.

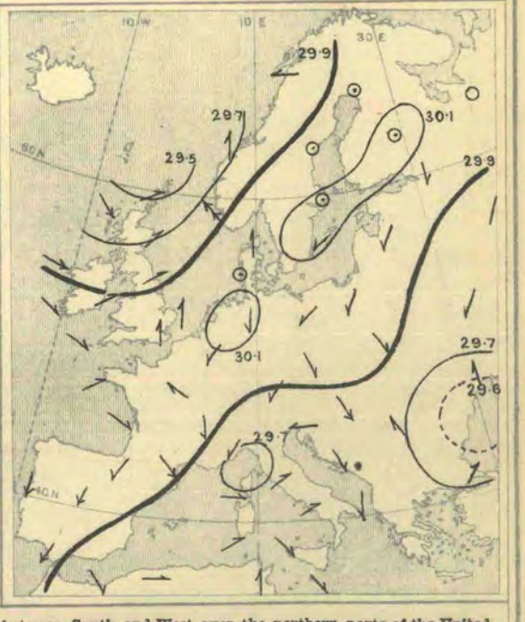
Monday, 23rd March.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.



Weather fair over the greater part of western and northern Europe, as well as in the south of France, but cloudy and showery at some of the English and Irish stations, with slight snow in London. Dull over the central, eastern, and some of the southern countries, with snow in many parts of Germany and Austria and rain at Hermanstadt. Snow showers falling later in the north of Scotland, thunder heard at Mullaghmore at night, and lightning occurring at Wick. Heavy rain in Algeria and much snow in the south of Russia.

Temperature highest, 64° at Constantinople, 61° at Brindisi, 57° at Malta, and 56° at Oran; above 50° over the Adriatic and the central and southern parts of the Mediterranean generally, but below 40° over the Riviera. Lowest, −3° at Kuopio, +1° at Archangel, 3° at Haparanda, and 8° at Uleaborg and Hangö; below the freezing point in most parts of northern and central Europe, as well as at some of the inland stations in England, France, and Spain. Daily maxima above 45° over the greater part of the United Kingdom, and thermometer reaching 50° at some of the French stations; exceeding 70° in many parts of Italy.

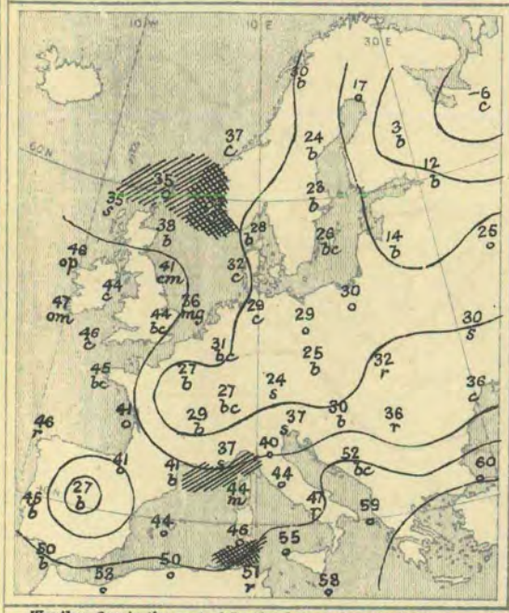
Wind light or moderate from between South and West over the northern parts of the United Kingdom, and from the South-Eastward over England and the west of Norway. Light or moderate from the North-Eastward or Northward over the Baltic, western Russia, Germany, Austria, France, and Spain, Southerly over Italy and Algeria, North-Westerly over the Riviera. Light Southerly and South-Westerly winds setting in later over the greater part of England; no important change elsewhere.

Barometer highest, 30·1 ins. and upwards over Denmark, the south of Sweden, and the southern parts of the North Sea; 30·0 ins. and upwards in a large anticyclonic band extending south-westwards from Finland to the Bay of Biscay. Lowest, 29·6 ins. and less in a depression lying over central Russia, and also in a small disturbance lying over the Gulf of Genoa; 29·7 ins. and less in a third system lying off the north of Scotland. Barometer falling later in most parts of the United Kingdom; depression over Russia moving southwards to Black Sea.

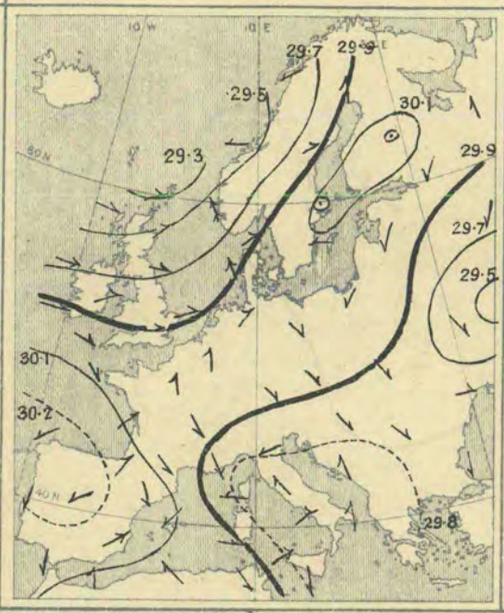
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons

Tuesday, 24th March.

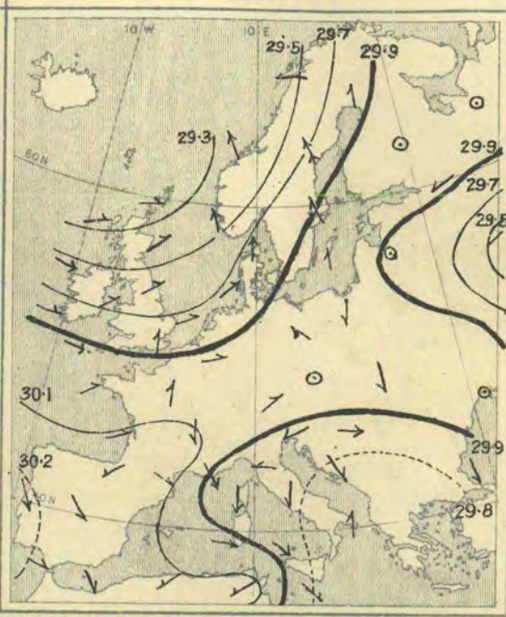
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine in the east of Scotland, as well as in Sweden, northern Russia, western and southern Germany, central France, and the greater part of Spain. Cloudy or overcast elsewhere, with passing showers in the north-west and south of the United Kingdom, rain at Lemberg, Hermanstadt, Rome, and La Calle, and snow in several parts of central Europe. Showers of rain, hail, or sleet falling later over nearly the whole of our Islands, Scandinavia, Denmark, and Holland; slight showers in Poland.

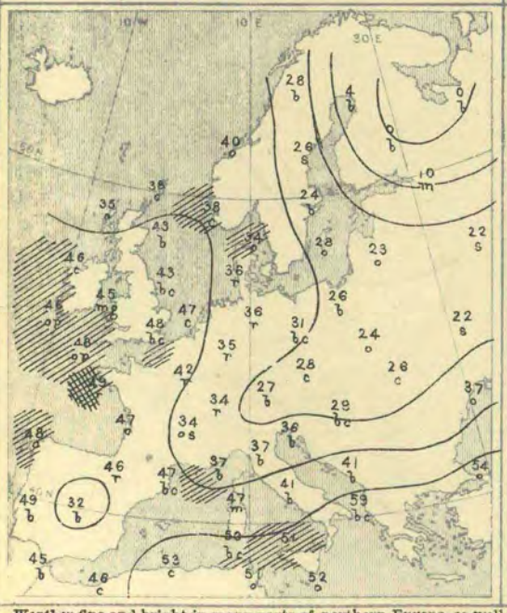
Temperature highest, 60° at Constantinople, 59° at Brindisi, 58° at Malta, and 55° at Palermo; above 45° over the central and southern parts of the Mediterranean generally, as well as in the south-west of our Islands, but below 40° in the Riviera. Lowest, −6° at Archangel, +3° at Kuopio, 10° at Helsingfors, 12° at Hangö and St. Petersburg, below the freezing point in most parts of northern and central Europe, as well as over the central parts of France and Spain. Subsequently rising to 50° or a little above at many of our western and southern stations, as well as over the greater part of France; to 60° and more in some parts of Algeria and the south of Italy, and to 70° at Brindisi.

Wind light to fresh from the Westward or South-Westward over our Islands, light from the Southward over France and the Netherlands; moderate to strong from the South-Eastward on the eastern shores of the North Sea. Light from the North-Eastward over the Baltic and northern Russia, and from the North-Westward over Germany and Austria, as well as in the south of France. Chiefly South-Easterly in Italy, variable in Spain and Algeria. No important change occurring during day, beyond a tendency to freshen in our Islands.

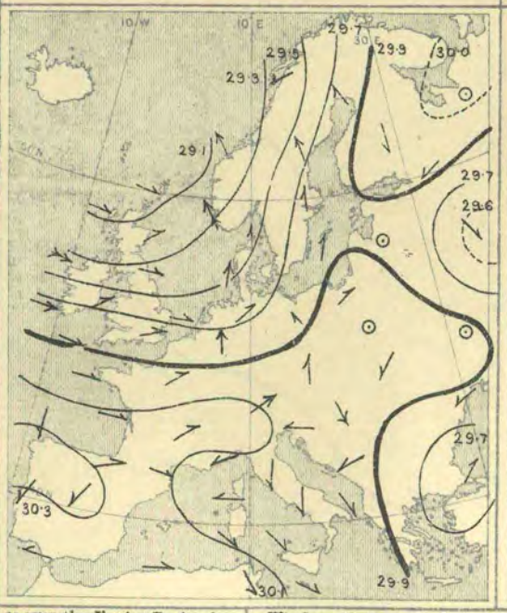
Barometer highest, 30·2 ins. and upwards in an anticyclone lying over Spain; 30·1 ins. and upwards in another lying over Finland; 30·0 ins. and upwards in a "col" extending north-eastwards across France, Germany, and the Baltic. Lowest, 29·3 ins. and less in a depression lying to the northward of the Shetlands; 29·5 ins. and less in another disturbance lying over the south of Russia, near Kharkov; 29·8 ins. and less in a large shallow area lying over Italy. Continuing to fall over western Europe during day, but change not rapid; depression over Italy moving eastwards.

Wednesday, 25th March.

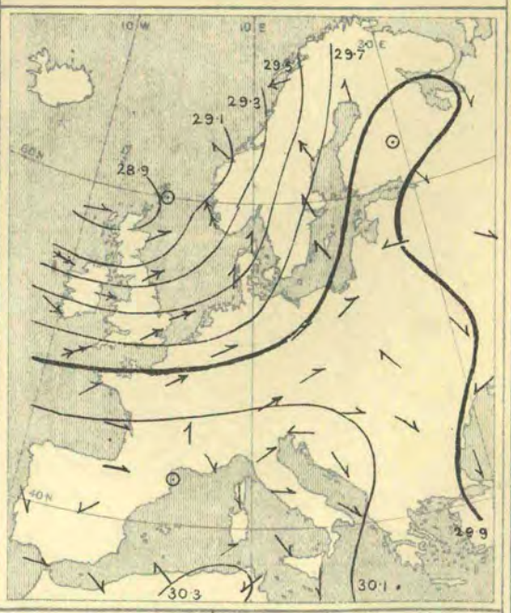
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright in many parts of northern Europe, as well as over the Iberian Peninsula, Italy, and the Adriatic, very changeable and unsettled elsewhere. Snow falling over western and central Russia, as well as at Lyons, rain in many parts of the United Kingdom and western Europe. Rain, snow, or hail showers later all over the United Kingdom, the northern and western parts of France, the Netherlands, North Sea, and North Germany, with squally unsteady winds; some showers over the Baltic and southern Russia also. Halos seen in several places.

Temperature changing fitfully; falling over northern, rising over western Europe. Morning readings exceeding 50° at Oporto, some of the Mediterranean stations, and Constantinople only; highest of all, 59° at Brindisi, 54° at Constantinople, and 53° at Algiers and Barcelona. Lowest, 0° (zero) Fahr. at Archangel and Kuopio, 9° at Helsingfors, 4° at Haparanda, 10° at St. Petersburg, and below 30° over the greater part of Russia and central Europe. Rising to between 50° and 56° over England and France during day, and to upwards of 60° in the south, but falling fast in our Islands towards night.

Wind moderate to fresh from West over England, fresh to strong over Ireland, the Irish and English Channels, strong to a gale from the Southward on the eastern shores of the North Sea, moderate Southerly in Sweden; very variable in direction, and light to moderate in force over the other parts of Europe and the Mediterranean. Increasing to a gale from West or North-West in many parts of our Islands later, and blowing very hard over the eastern portions of the Channel.

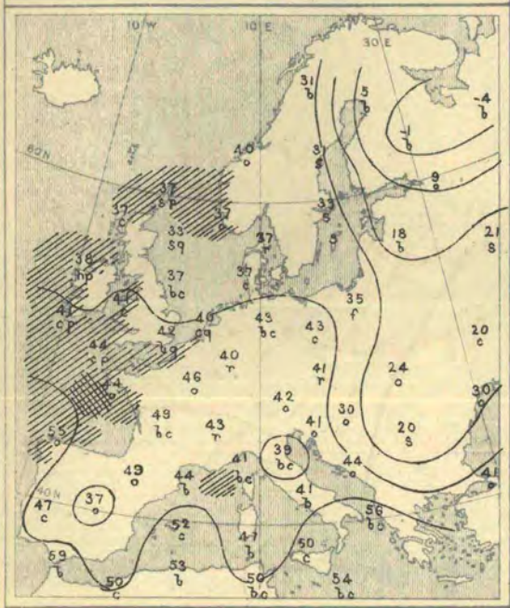
Barometer highest, 30·3 ins. to 30·0 ins. in a high pressure area of irregular form stretching from the Atlantic across the Peninsula to the Mediterranean, Italy, and the southern parts of France and Germany; 30.0 ins. to 29·9 ins. in another system over northern Russia and Finland. Lowest, 29·1 ins. and less in a large depression off our northern coasts, 29·6 ins and less in a smaller one over central Russia, 29·7 ins. and less in a third over European Turkey and the Bosphorus. New disturbance approaching north of Scotland later, and spreading south-eastwards quickly; barometer falling over the British Islands generally, most in north.

Judd & Cº Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

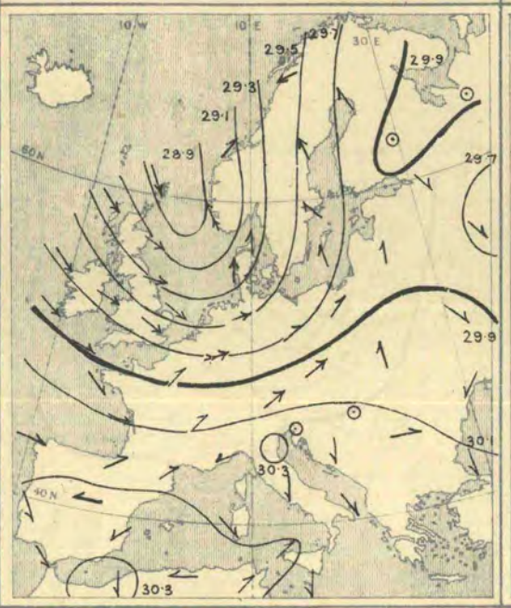
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 26th March.

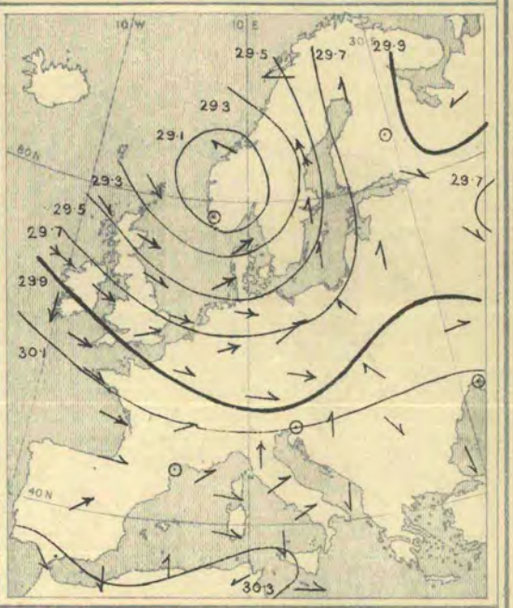
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over Lapland, Finland, and the north of Russia, also at most of the Mediterranean stations, and (temporarily) in many parts of England; cloudy and very changeable elsewhere. Snow and hail squalls in many parts of the British Islands, at Hernösand, and at Hermanstadt; rain at Copenhagen, Münster, Lyons, and Jersey. Snow, hail, or cold rain during day over the British Islands and north-western Europe generally and a little at Moscow; thunderstorms in many parts of England during snow showers.

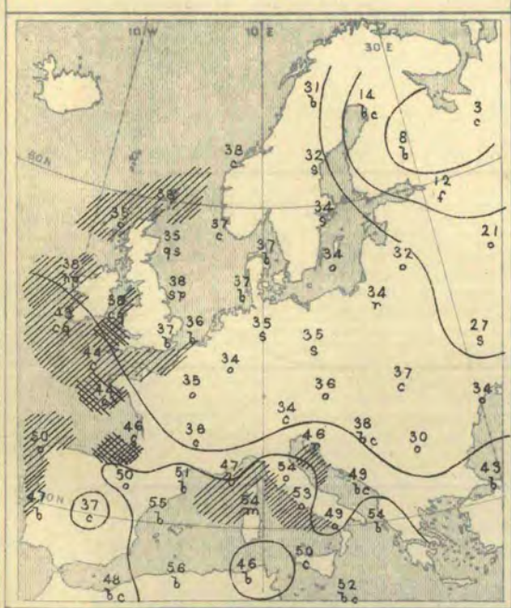
Temperature risen over the Baltic and central Europe, fallen in the north-west and west, and low generally. Morning readings exceeding 50° on the Spanish coasts and on the southern side of the Mediterranean only, below 40° in the north and east of our Islands and in Denmark, and as low as −1° Fahr. at Kuopio, +4° at Archangel, 5° at Helsingfors and Haparanda, 9° at St. Petersburg, 18° at Riga, 20° at Hermanstadt, and below 32° Fahr. over Russia, Hungary, and Poland generally. Below 50° in our Islands and north of France all day (below 40° at Stornoway and Malin Head), but rising to between 57° and 68° in south of France and in Italy and to rather more than 60° in some parts of Algeria. Night very cold over British Islands.

Wind fresh to a gale from between West and North-West over the United Kingdom and Channel, Southerly to South-Easterly over the countries lying to the eastward of the North Sea, South-Westerly over Germany and the east of France. Very light and variable over Russia, south-eastern and southern Europe, and the Mediterranean. Westerly wind spreading southwards over France from the Channel later and Westerly to North-Westerly wind blowing very strong and squally in our Islands.

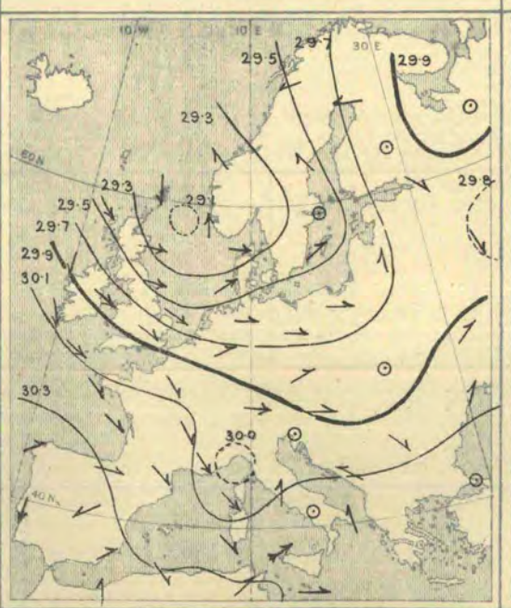
Barometer highest, 30·3 ins. and more to 30·1 ins. over Algeria, the Mediterranean, and the whole of southern Europe, and exceeding 29·9 ins. over Finland and the White Sea. Lowest, 28·9 ins. and less in a depression lying between the Shetlands and the west of Norway, and 29·7 ins. and less over central Russia. Northern depression moving south-eastwards over Norway later and barometer rising over the United Kingdom.

Friday, 27th March.

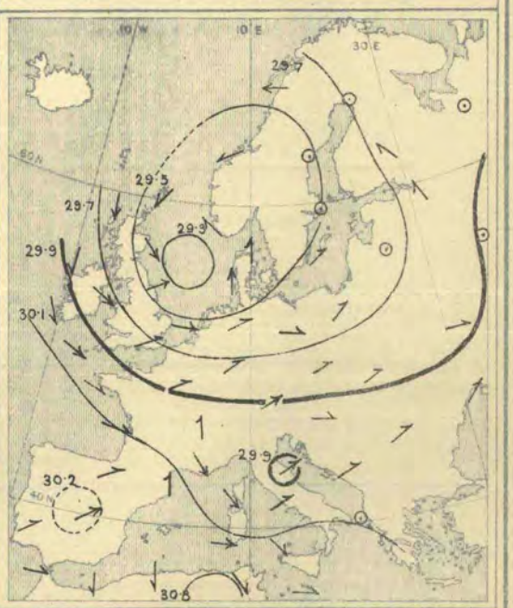
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright over many parts of Lapland, Finland, and northern Russia, and also over the southern parts of Spain, the Mediterranean, and south-eastern Europe; cloudy, changeable, and unsettled elsewhere, snow, hail, or cold rain showers in many parts of the British Islands, snow in Sweden, at Berlin, and Kiev, rain at Memel and Cracow. Snow and hail showers prevailing over north-western Europe generally during day, rain in several parts of France, and thunder at Belfort. Heavy snow reported at Hernösand.

Temperature very low generally for the time of year; exceeding 50° on the Portuguese coast and at some of the Mediterranean stations only, exceeding 40° at the other Mediterranean stations, in the west of France, and the south-western parts of the British Islands; below 40° elsewhere, and as low 3° Fahr. at Archangel, 8° at Kuopio, 12° at Uleaborg and St. Petersburg, and below the freezing point over all the inland parts of Russia. Not touching 50° at any of our own and the German stations later, exceeding that value in the south-west and south of France, and exceeding 60° at Nice and Perpignan, as well as over the greater part of Spain, Italy, and Algeria.

Wind strong and squally from between North and West over the British Islands, the Channel, and north-west of France, and blowing a gale at some exposed places; moderate Westerly over Germany and the southern parts of the Baltic, South-Easterly over Finland and the northern half of Scandinavia. Fresh to strong North-Westerly over the north-western part of the Mediterranean, Southerly and South-westerly over Italy, and a strong gale from South-West at Palermo. Remaining squally throughout our Islands during day, but inclined to decrease. Blowing a gale from West at Nice in evening.

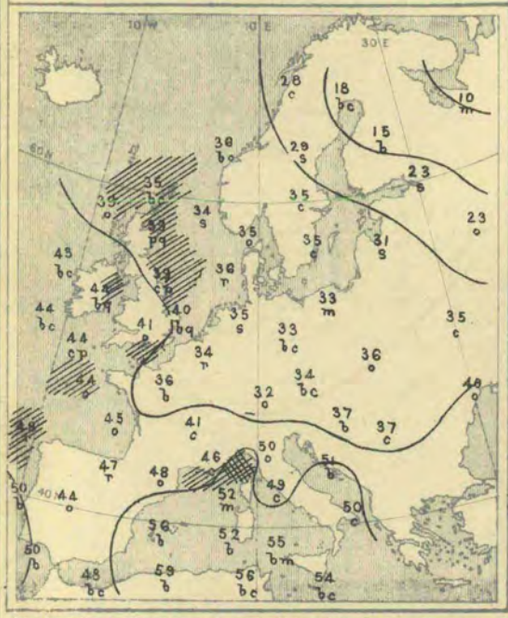
Barometer highest, 30·4 ins. and more to 30·1 ins. over the Spanish Peninsula, the Bay of Biscay, the south-western half of France, and the greater part of the Mediterranean and south-eastern Europe; 29·9 ins. and more over northern Russia. Lowest, about 29·1 ins. in a depression between the Shetland Islands and Norway, below 29·7 ins. over north Germany, and slightly below 30·0 ins. in a small depression over the Riviera and Gulf of Genoa. The northern depression moving southwards later and barometer rising over Norway, Scotland, and the north of Ireland.

Judd & Co Lith. 73 & 75 Farringdon Rd & Doctors Commons

Saturday, 28th March.

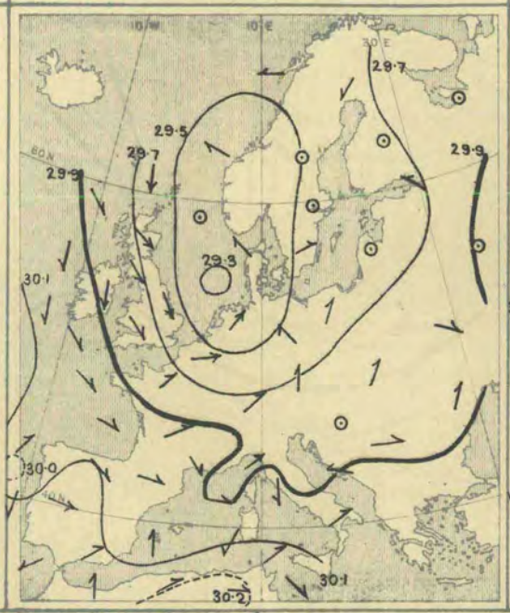
Temperature and Weather.

8 a.m.

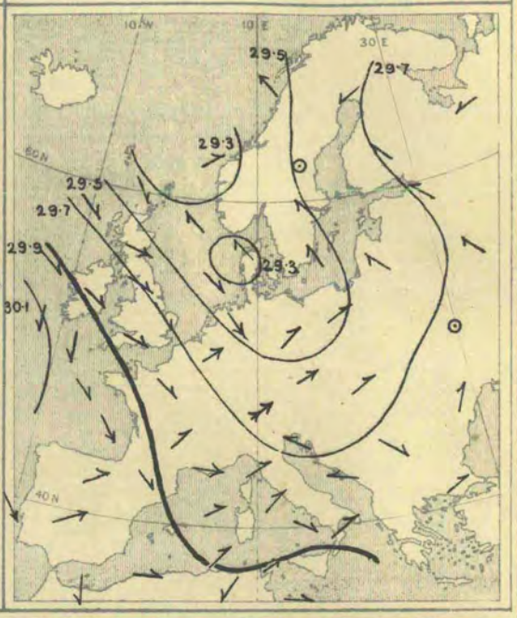


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine in the west and south of our Islands, as well as over the greater part of France and the Mediterranean. Cloudy or overcast elsewhere, with passing showers on the east coast of Great Britain, and snow over the Baltic provinces and many parts of Scandinavia and Germany. Snow falling later in the north of Scotland, and heavy rain in the western parts of the Iberian Peninsula (1·7 ins. at Corunna and 1·1 ins. at Lisbon).

Temperature highest, 59° at Algiers, 56° at Barcelona, Palma, and La Calle, and 55° at Palermo; above 50° at most of the Mediterranean stations, and also over the Adriatic. Lowest, 10° at Archangel, 15° at Kuopio, 18° at Haparanda, and 19° at Uleaborg; below the freezing point over the northern parts of Russia and Scandinavia generally, and below 40° in the north of Scotland. Daily maxima below 50° over the greater part of the United Kingdom, and below 40° at some of the German stations, but thermometer rising to 55° and more in the south of France.

Wind moderate to strong from the North-Westward over our Islands and the west of France; moderate from the South-Westward over Italy, the east and south of France, and western Germany; light from the Southward over Denmark, the Baltic, and Eastern Germany. Easterly or variable over Scandinavia; Southerly in Algeria; variable over the Spanish Peninsula. Strong Southerly wind setting at Lisbon in evening.

Barometer highest 30·2 ins. and upwards over Algeria; 30·1 ins. and upwards over Spain and the southern parts of the Mediterranean, and (apparently) to the westward of Ireland. Lowest, 29·25 ins. to 29·40 ins. in an elongated depression extending from the mouth of the Trondjem Fiord to Holland and north Germany. New disturbance appearing later to the northward of the Shetlands; shallow cyclonic system lying all day off the Portuguese coast.

GENERAL NOTES.

At the commencement of the week a large anticyclone of moderate height extended from south-west to north-east across north-western Europe, while shallow depressions existed over the Mediterranean and the south-eastern countries. On the 23rd and 24th, however, the anticyclone moved southwards, and by the evening of the 25th it had reached southern Europe and the Mediterranean. In the meantime a large and deep depression had appeared off the north of Scotland, and had produced gales from the Westward or South-Westward over our Islands and strong winds from the Southward and South-Eastward over Scandinavia, with rain, sleet, or snow over the north-western countries generally. On the 26th and 27th the centre of the depression moved slowly in a southerly and south-easterly direction across the North Sea and very cold inclement weather set in over the United Kingdom, with strong North-Westerly and Northerly winds, frequent snow showers, and thunderstorms in some parts of England. At the close of the week, when the disturbance had reached Denmark, a new depression was beginning to appear off the west of Norway, and cold showery weather continued to prevail over all the more northern and north-western parts of Europe, with considerable falls of snow at some of the Scandinavian and German stations.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 68.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	16·3	?	19	?	EASTBOURNE	43·3	?	50	?
OSWALDKIRK	24·5	?	28	?	TORQUAY	29·7 *	?	35 *	?
WORKSOP	27·6	+ 3·3	32	+ 4	ARLEY (County Cavan)	18·8	?	21	?
THURCASTON	36·4	+14·2	42	+17					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

REPORTS received too late for insertion in their proper places.

DATE OF REPORT.	NAMES OF STATIONS.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each Day.	Of Lowest each Day.	For whole of each Day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-Degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
February 28th, 1891	Blackpool	59	31	52·2	35·2	43·7	+3·5	40	19	0	—	−0·55	?	?	?	?
March 7th, "	Stowell	55	37	50·5	40·1	45·2	+4·9	30	5	1	0·47	?	18·2	?	24	?
" 14th "	Blackpool	44	24	39·6	28·4	33·8	−7·0	0	57	0	—	−0·52	?	?	?	?
" " "	Prawle Point	44	28	38·0	32·0	34·9	−7·8	0	50	?	?	?	*	*	*	*
" 21st "	Arley (County Cavan)	—	—	—	—	—	—	—	—	—	—	—	? 30·8	?	? 37	?

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 13]. *Third Series.* WEEK ENDING SATURDAY, 4TH APRIL, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881–90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 74.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	49	25	42·7	31·5	36·7	4 below.	2	−10	34	+ 6	132	+39	460	+ 25
	1. SCOTLAND, EAST	54	17	42·3	30·6	36·2	5 below.	1	−20	38	+ 8	140	− 1	519	+ 44
	2. ENGLAND, N.E.	48	22	42·3	32·1	36·9	5 below.	1	−20	33	+ 5	127	−10	500	+ 71
	3. ENGLAND, EAST	55	25	46·4	32·0	38·9	4 below.	12	−15	36	+ 6	154	−14	601	+117
	4. MIDLAND COUNTIES	57	21	47·6	32·0	39·4	3 below.	16	−12	36	+ 6	178	− 7	566	+ 95
	5. ENGLAND, SOUTH	57	25	48·9	34·7	41·4	3 below.	19	− 8	28	+ 4	155	−48	515	+143
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	50	21	44·6	32·6	38·3	4 below.	7	−12	33	+ 9	161	+19	367	+ 15
	7. ENGLAND, N.W.	58	22	45·7	34·1	39·6	3 below.	10	−10	28	+ 5	167	+25	339*	+ 30
	8. ENGLAND, S.W.	55	20	47·9	36·1	41·7	2 below.	17	− 7	23	+ 4	198	−30	387	+107
	9. IRELAND, NORTH	56	21	46·4	35·5	40·7	3 below.	12	−13	24	+ 5	216	+14	330*	+ 20
	10. IRELAND, SOUTH	60	22	50·5	33·7	44·3	1 below.	30	0	9	− 7	302	+17	264	+ 25
	— CHANNEL ISLANDS	54	31	49·9	41·4	45·5	1 below.	27	0	2	− 6	271	−18	161	+ 44

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 74.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	Rainfall. From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	Bright Sunshine. From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	4	2	5 less.	65	− 1	14·8	+ 1·3	35	+11	39	+12	205	+ 21	23	+ 1
	1. SCOTLAND, EAST	4	6	1 more.	38	−12	5·0	− 2·7	24	+ 4	26	+ 2	254	+ 23	29	+ 2
	2. ENGLAND, N.E.	5	5	0 (average)	43	− 3	3·8	− 1·8	28	+ 2	31	+ 1	255	+ 56	28	+ 6
	3. ENGLAND, EAST	4	5	1 more.	43	− 3	3·7	− 1·8	29	0	33	− 2	292*	+ 54	32	+ 6
	4. MIDLAND COUNTIES	4	8	4 more.	37	− 7	4·1	− 2·4	26	− 1	29	− 2	271	+ 60	30	+ 7
	5. ENGLAND, SOUTH	3		1 more.	38	− 6	5·7	− 1·0	30	0	33	− 3	281	+ 62	30	+ 6
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	3	8	1 more.	47	− 8	9·2	− 4·4	33	+ 5	36	+ 4	250	+ 52	28	+ 6
	7. ENGLAND, N.W.	4	9	4 more.	35	−15	4·6	− 3·4	27	0	29	− 1	264	+ 65	29	+ 6
	8. ENGLAND, S.W.	4	11	5 more.	38	−13	6·9	− 3·5	27	− 9	30	−10	320	+ 65	34	+ 7
	9. IRELAND NORTH	5	10	5 more.	49	− 9	5·5	− 3·2	21	− 4	23	− 7	270	+ 64	30	+ 7
	10. IRELAND, SOUTH	6	14	8 more.	42	−12	5·5	− 5·0	24	− 8	27	−10	300	+ 49	33	+ 5
	— CHANNEL ISLANDS	5	6	1 more.	43	−14	6·1	− 2·4	35	− 5	38	− 6	408	+ 97	43	+ 9

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been changeable and inclement, with frequent showers of snow or sleet, over the northern parts of the United Kingdom. In the south and east of England, however, the weather was mostly fair and dry until the closing days of the week, when some considerable falls of rain were experienced. Thunder and lightning occurred in various parts of England on the 4th of April.

Temperature has been below the mean in all districts, the deficit varying from 1° in "Ireland S." and the "Channel Islands" to between 3° and 5° in nearly all other parts of the Kingdom. The highest readings were registered on very irregular dates in Ireland and Scotland, but mostly on the 4th of April over England; in Scotland and the north-east of England the thermometer did not exceed 50°, but in most other parts of our Islands it exceeded 55°, while in "Ireland S." it reached 60°. The lowest readings, which occurred at various times during the early part of the week, ranged from 17° in "Scotland E." to between 20° and 25° in all other districts excepting the "Channel Islands," where the thermometer did not fall below 31°.

Rainfall has been less than the mean in "Scotland N." and about equal to it in "England N.E.," but more in all other districts. Large quantities of snow are said to have fallen in north Wales on the 2nd.

Bright Sunshine has been less prevalent than it was last week over England and the south of Ireland, but more so in Scotland and the north of Ireland. The percentage of the possible duration has ranged from 23 in "Ireland N." and 26 in "Scotland E." to 36 in "Scotland W.," 38° in the "Channel Islands," and 39 in "Scotland N."

Barometer and Wind.—At the beginning of the week pressure was highest to the west of our Islands, while a complex cyclonic system travelled south-eastward across the eastern parts of the North Sea. The prevailing winds were therefore North-Westerly—moderate in force in the west, but strong in the north and east. On the 31st March the high-pressure system in the west drifted eastwards and south-eastwards across the Kingdom to the Continent, where it dispersed; but at the same time a large anticyclone appeared over Scandinavia, and as the latter change was accompanied by the advance of some depressions to our west coasts, South-Easterly winds of increasing strength soon spread over the whole of our Islands. At the close of the period some shallow disturbances were advancing over England from the Southward, and the wind over our southern and south-western coasts was veering to South or South-West.

* This value has been altered owing to the receipt of further information.

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II.– DATA from which the SUMMARY on page 73 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	45	25	41·3	31·1	35·0	− 4·2	0	49	5	0·21	−0·35	*	*	*	*
	Stornoway	45	27	42·1	31·4	36·5	− 4·2	0	35	2	0·07	−0·67	39·3	+ 11·1	43	+ 12
	Wick	48	28	42·7	34·0	38·1	− 2·8	2	27	5	0·42	+0·01	*	*	*	*
	Lairg ⚓	49	26	41·6	29·8	35·4	− 4·3	0	46	6	0·45	−0·15	*	*	*	*
	Glencarron ⚓	46	27	42·3	29·5	35·6	− 4·5	1	42	4	0·37	−0·35	*	*	*	*
	Fort Augustus ⚓	48	26	43·9	31·6	37·5	− 3·6	5	36	1	0·01	−0·55	33·8	?	37	?
	Fort William ⚓	49	27	44·8	33·3	38·8	− 3·3	8	31	3	0·13	−0·87	32·4	?	36	?
1. SCOTLAND, E.	Nairn	49	27	43·1	31·6	37·1	− 4·2	3	35	2	0·05	−0·29	*	*	*	*
	Aberdeen	44	30	41·1	32·0	36·3	− 5·0	0	40	5	1·05	+0·4	32·2	+ 2·8	35	+ 2
	Braemar ⚓	42	17	37·9	26·7	32·0	− 5·8	0	70	6	0·69	+0·13	22·2 †	? †	24†	?†
	Ochtertyre ⚓	54	25	44·7	30·9	37·5	− 3·7	8	39	4	1·30	+0·72	*	*	*	*
	Leith	49	25	45·6	32·4	38·7	− 4·0	10	34	1	0·01	−0·34	*	*	*	*
	Marchmont ⚓	45	25	41·6	29·7	35·4	− 5·3	0	46	4	0·25	−0·32	18·5	?	21	?
2. ENGLAND, N.E.	Alnwick Castle	41	25	40·0	32·7	36·2	− 4·6	0	41	6	0·73	+0·21	*	*	*	*
	Durham	47	27	43·1	31·8	37·2	− 4·5	3	35	7	0·40	−0·11	27·3	+ 1·5	30	+ 2
	Shields	45	27	42·4	30·0	35·9	− 5·9	1	40	3	0·14	−0·28	*	*	*	*
	Scarborough ⚓	42	29	41·1	33·5	37·1	− 5·7	0	34	5	0·38	−0·07	*	*	*	*
	York	48	22	45·1	29·3	36·8	− 6·1	9	44	7	0·79	+0·38	27·4	+ 1·4	30	+ 1
	Spurn Head	43	31	41·9	35·0	38·3	− 3·7	0	26	3	0·27	−0·04	-	*	*	*
3. ENGLAND, E.	Hillington ⚓	51	26	47·4	31·7	39·2	− 3·7	15	37	3	0·44	+0·05	31·4	+ 2·6	35	+ 4
	Yarmouth	43	30	41·3	33·4	37·2	− 4·5	0	34	4	0·61	+0·20	*	*	*	*
	Geldeston	47	25	44·9	31·6	37·9	− 5·5	8	36	5	0·55	+0·20	38·6	+ 5·5	43	+·5
	Cambridge	55	27	50·6	31·6	40·6	− 3·0	24	39	3	0·46	+0·09	22·1	−11·4	25	− 9
	Rothamsted	52	25	47·8	31·9	39·5	− 3·2	16	37	3	0·47	+0·05	24·7	?	27	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	50	22	47·7	32·1	39·5	− 3·3	16	36	4	0·51	+0·11	*	*	*	*
	Loughborough	51	23	47·6	31·4	39·1	− 4·3	16	38	3	1·01	+0·61	*	*	*	*
	Stamford (Ketton Hall)	50	22	48·1	31·3	39·3	− 3·8	17	39	4	0·53	?	*	*	*	*
	Cheadle ⚓	48	26	44·2	31·2	37·4	− 4·2	6	37	5	1·49	+0·99	*	*	*	*
	Churchstoke ⚓	53	23	46·6	31·4	38·6	− 3·0	13	38	5	1·11	+0·67	29·5	+ 1·0	33	+ 2
	Hereford ⚓	56	26	49·1	33·7	41·0	− 2·6	20	31	5	0·55	+0·14	*	*	*	*
	Cirencester	57	21	48·4	31·6	39·6	− 2·1	18	38	4	0·64	+0·16	25·0	− 3·6	28	− 5
	Oxford	56	26	48·9	32·9	40·5	− 3·3	19	34	4	0·53	+0·13	28·4	− 0·8	32	− 1
5. ENGLAND, S.	London	54	28	49·4	34·3	41·5	− 3·0	21	30	2	0·44	+0·04	22·7 †	− 2·1†	25†	− 2†
	Strathfield Turgiss ⚓	57	25	50·6	33·3	41·5	− 2·2	24	33	5	0·68	+0·30	*	*	*	*
	Dungeness	53	28	47·3	34·3	40·5	− 2·6	15	29	2	0·13	−0·29	*	*	*	*
	Hastings (St. Leonards)	50	31	47·0	35·5	41·0	− 3·8	14	25	3	0·44	−0·03	31·7	− 3·9	35	− 5
	Southampton	54	28	49·9	35·0	42·1	− 2·8	30	20	4	0·85	+0·38	3·.0	− 2·8	36	− 3
	Hurst Castle	55	30	49·0	36·9	42·7	− 1·3	26	14	3	0·77	+0·31	*	*	*	*
	Stowell ⚓	53	25	49·0	33·4	40·8	− 2·8	20	32	4	0·49	?	30·3 †	? †	34†	? †
6. SCOTLAND, W.	Laudale (Loch Sunart)	48	26	44·3	32·2	38·0	− 4·5	6	34	3	0·44	−0·82	*	*	*	*
	Glasgow	46	28	43·2	32·6	37·7	− 4·0	3	32	4	0·40	−0·13	29·7	+ 6·5	33	+ 7
	Ardrossan	50	28	45·6	33·6	39·3	− 3·5	10	30	1	0·18	−0·35	*	*	*	*
	Glenlee ⚓	49	21	44·5	30·3	37·1	− 3·5	7	41	4	1·09	+0·29	*	*	*	*
	Douglas (Isle of Man)	48	26	45·3	34·3	39·5	− 3·0	9	27	5	1·88	+1·30	35·2	+ 1·0	39	+ 1
7. ENGLAND, N.W.	Newton Reigny	46	22	43·1	29·1	35·9	− 5·2	3	42	3	0·62	+0·15	24·2	− 4·0	27	− 5
	Stonyhurst	48	25	44·1	32·3	38·0	− 4·3	6	32	4	0·66	−0·02	24·6	− 2·2	27	− 2
	Blackpool ⚓	48	34	45·7	34·9	39·9	− 2·5	10	25	2	0·66	+0·21	?	?	?	?
	Manchester	48	29	46·3	34·1	39·9	− 2·3	12	29	4	1·29	+0·79	*	*	*	*
	Liverpool Obsy. (Bidston)	48	32	45·3	35·0	39·9	− 3·7	9	25	5	1·07	+0·68	*	*	*	*
	Llandudno ⚓	58	31	47·0	35·6	41·0	− 3·7	14	24	5	0·69	+0·24	30·8	+ 5·3	34	+ 6
	Holyhead	55	34	45·4	37·0	42·4	− 1·7	24	14	5	1·10	+0·62	*	*	*	*
8. ENGLAND, S.W.	Llandovery	55	20	50·1	32·0	40·6	− 3·1	23	38	5	1·13	+0·42	*	*	*	*
	Pembroke	47	34	45·7	38·7	42·0	− 1·8	10	9	4	1·59	+1·11	25·5	−10·5	28	−12
	Arlington (N. Devon)	51	26	46·4	33·4	39·6	− 3·1	12	31	4	1·44	+0·74	*	*	*	*
	Cullompton ⚓	52	23	48·2	34·2	40·9	− 2·9	17	30	5	1·04	+0·46	24·1	− 6·9	27	− 8
	Falmouth	53	32	49·4	39·9	44·4	− 0·3	26	6	4	0·84	+0·10	26·9	− 5·1	33	− 6
	Plymouth	54	30	49·3	37·1	42·9	− 2·9	27	14	4	0·85	+0·27	21·9	−13·1	24	−15
	Prawle Point	48	32	46·1	37·1	41·4	− 2·6	11	19	4	0·57	+0·10	*	*	*	*
9. IRELAND, N.	Malin Head	51	33	43·9	35·7	39·6	− 4·0	5	22	4	0·46	?	*	*	*	*
	Londonderry	56	30	46·5	35·3	40·7	− 3·2	13	25	6	0·67	+0·12	*	*	*	*
	Mullaghmore	52	29	46·7	37·1	41·7	− 2·6	13	19	4	0·71	+0·17	*	*	*	*
	Belmullet	50	34	48·4	39·0	43·5	− 2·3	23	8	6	0·57	?	*	*	*	*
	Markree Castle	51	21	46·7	34·7	40·4	− 2·9	13	27	5	1·16	+0·60	16·5	−11·5	18	−14
	Brobkeborough	53	22	45·2	33·1	38·9	− 3·3	9	32	5	1·48	+0·88	*	*	*	*
	Armagh	51	26	46·0	33·7	39·6	− 3·1	11	30	5	1·01	+0·52	27·0	+ 1·0	30	+ 1
	Donaghadee	49	35	45·7	36·9	41·1	− 2·5	10	19	6	1·37	+0·91	*	*	*	*
	Edgeworthstown	52	22	48·3	34·3	40·9	− 1·3	18	29	5	1·91	+1·32	*	*	*	*
10. IRELAND, S.	Dublin	53	28	47·6	38·6	41·8	− 3·0	16	21	6	0·91	+0·42	26·4	− 5·6	29	− 7
	Parsonstown	54	24	49·9	35·4	42·3	− 1·4	30	18	6	1·00	+0·50	17·7	−14·1	20	−15
	Kilkenny	55	22	49·7	35·7	42·4	− 1·3	29	18	6	1·51	+1·01	*	*	*	*
	Waterford	54	23	49·8	37·6	43·4	− 1·5	28	12	6	1·94	+1·31	*	*	*	*
	Roche's Point	53	35	50·6	41·6	45·9	+ 0·3	29	1	5	1·30	+0·50	*	*	*	*
	Valencia	55	38	52·1	42·1	46·9	+ 0·5	34	0	7	2·14	+1·26	28·3	− 7·1	31	− 8
	Killarney	60	33	52·5	40·4	46·2	+ 1·3	36	4	6	0·83	?	*	*	*	*
	Foynes	54	32	51·5	39·9	45·4	+ 0·9	33	6	5	1·37	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	54	40	50·0	42·9	46·3	− 0·1	30	0	6	0·53	0·00	*	*	*	*
	Jersey	52	31	49·7	39·3	44·6	− 1·4	27	6	3	0·68	+0·18	34·5	− 4·5	38	− 6

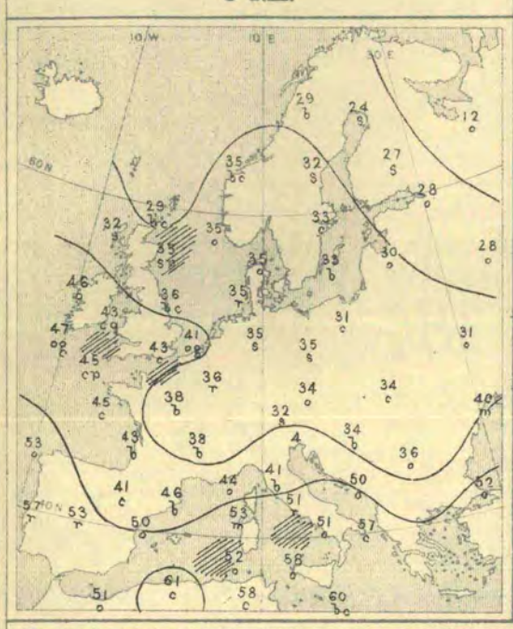
Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

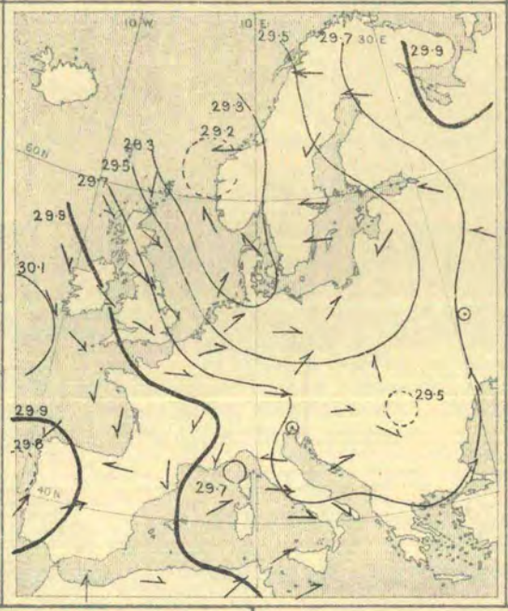
† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 29th March.

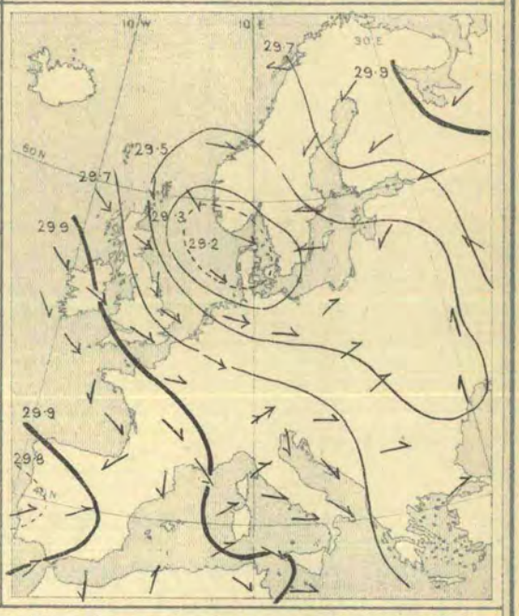
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright in several parts of France and the British Islands, but changeable and unsettled, as a whole, both over the United Kingdom and Continent. Snow falling at many stations in the northern and central countries, rain in the south and west. Snow or hail falling later over all our northern and eastern districts, as well as over central Europe (heavily in Poland and Hungary); rain in many parts of the Spanish Peninsula and at Constantinople.

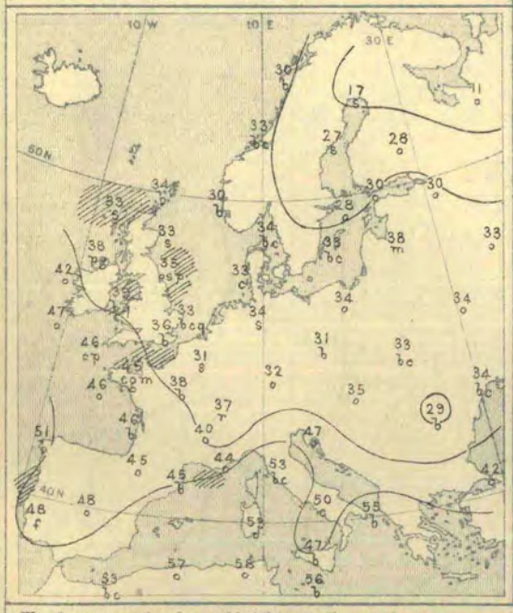
Temperature still low generally; morning readings exceeding 50° at Constantinople, most of the Mediterranean and Adriatic stations, and in Portugal, and exceeding 40° over the western and southern parts both of our Islands and France. Lowest, 12° Fahr. at Archangel, 24° at Haparanda, 27° at Kuopio, 28° at St. Petersburg, Moscow, and Kharkov, 30° at Riga. Rising during day to 50° and more over the western and southern parts of the British Islands and over France, to between 55° and 65° over northern Italy, and to between 60° and 70° over southern Italy and Algeria. Night very cold again over Great Britain.

Wind light to moderate from the Eastward over northern Europe; strong Northerly to North-Westerly over Scotland and England, moderate in Ireland; Westerly to South-Westerly over Germany, Southerly over Holstein. Moderate North-Easterly to Northerly over the southern half of France, Westerly over the northern parts of the Mediterranean, Southerly in the south of Portugal, but North-Easterly at Corunna. North-Westerly wind in our Islands inclined to moderate, as a whole, later, but continuing strong in Scotland and blowing hard over Caithness.

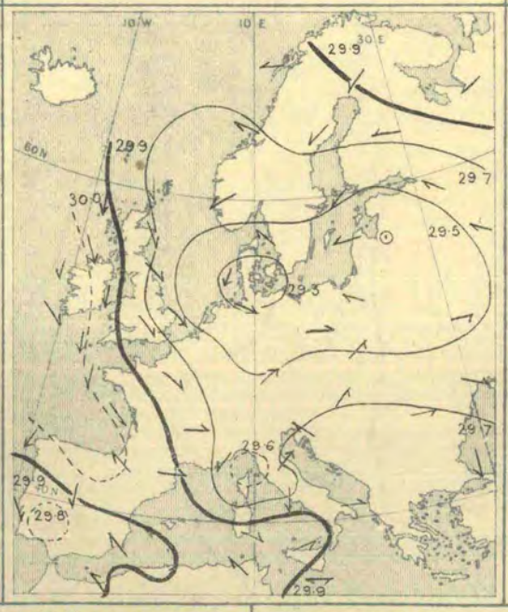
Barometer highest, (1) 30·1 ins. to 30·0 ins. over Ireland, the Bay of Biscay, and west of France; (2) 30·0 ins. and more over Algeria; (3) 29·8 ins. and more to 29·7 ins. over Russia. Lowest, (1) 29·3 ins. to 29·2 ins. and less in a complex depression over Norway, Denmark, and Holstein; (2) 29·6 ins. and less over the northern part of the Adriatic; (3) 29·7 ins. over the Gulf of Genoa; and (4) 29·8 ins. off the Portuguese coast. Rather low over Poland and Hungary also. Not much change later, but complex depression, named above, becoming more simple.

Monday, 30th March.

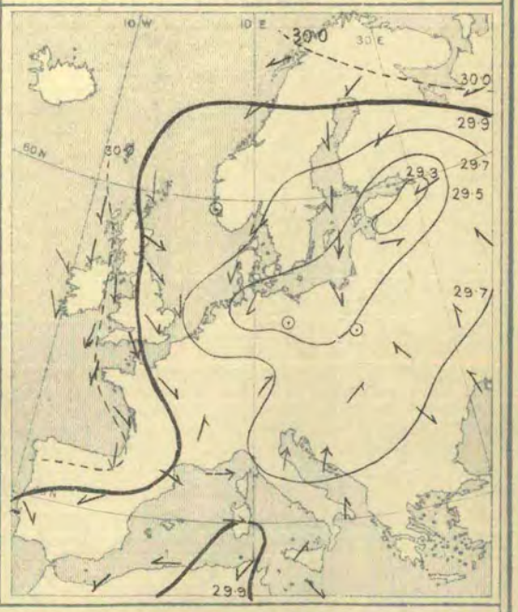
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over France, the greater part of the Mediterranean, and south-eastern Europe; drier and brighter than of late over the western parts of our Islands, still cloudy and unsettled elsewhere; snow falling at many of the Baltic, Russian, and German stations, as well as at some of those in the north and north-east of Great Britain. Snow at times in the north and east of our Islands later, as well as over central Europe and the Baltic; fall considerable at Aberdeen and Munich; a good deal of rain in several parts of Algeria and Spain.

Temperature fallen again over northern Europe, the North Sea, and England, risen over central and southern Russia; still very low generally. Morning readings exceeding 50° at some of the Mediterranean stations and Corunna; below 40° over all the northern and central countries, and as low as 11° at Archangel, 17° at Haparanda, 27° at Hernösand, 28° at Stockholm, and 30° at Bodö, Hangö, and St. Petersburg. Remaining below 50° over Great Britain and Ireland all day, and not exceeding 40° to 42° on our north and north-east coasts. Air dry and keen. Rising, however, to 60° and more over the southern parts of Spain, France, and Italy, and to 70° in some parts of Algeria.

Wind moderate Easterly over northern Europe, moderate to strong Northerly over the United Kingdom, North-Westerly (very moderate) over the Bay of Biscay and France. Westerly over Germany, Austria, and south-western Russia; variable over Spain and the northern parts of the Mediterranean. Moderating over our Islands later and falling light in far west becoming strong over the greater part of southern Europe.

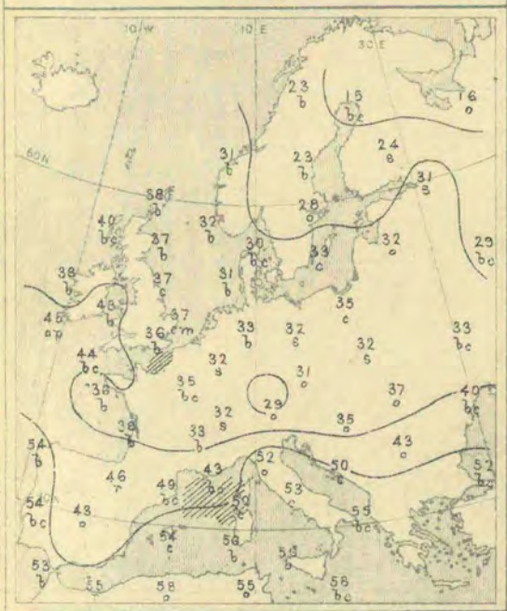
Barometer highest, (1) 30·0 ins. and more to 29·9 ins. over the western parts of the British Isles, the Bay of Biscay, north of Spain, and west and south-west of France; (2) 29·9 ins. and more to 29·8 ins. over northern Russia and Lapland, as well as over Tunis and eastern Algeria. Lowest, 29·3 ins. and less in a complex depression covering Holstein, north Germany, and Baltic Provinces, 29·6 ins. and less in another depression over the Gulf of Genoa, and about 29·8 ins. in a third (very shallow) over Spain, not far from Cadiz. Rising over the British Islands and France later, but inclined to fall at Valencia Island in evening.

Judd & Cº Lith. 73 & 75. Farringdon Rd & Doctors' Commons

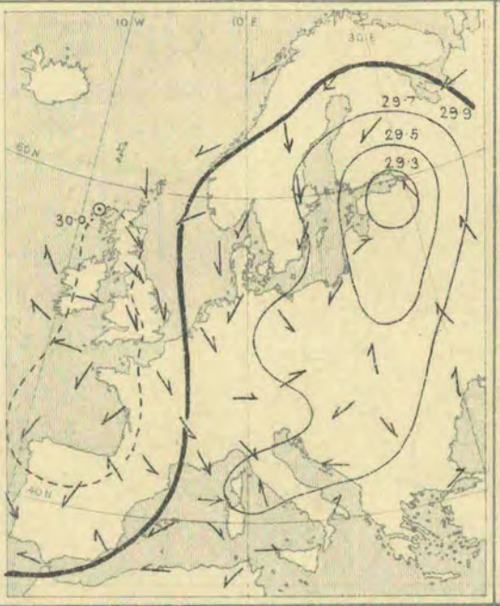
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 31st March.

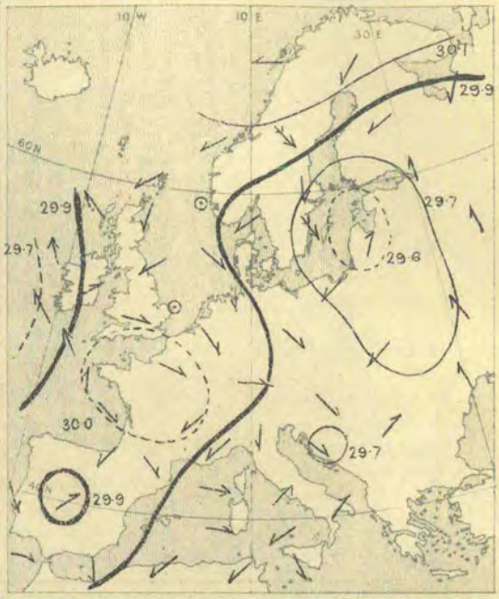
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather still very unsettled, with snow, over northern Russia, the Baltic, Germany, and Poland; dull over south-eastern Europe, but fine over western Europe as a whole, excepting Valencia Island. Considerable rain at Nemours and in the south of Ireland later, and snow at several Continental stations; amounts large both at Hermanstadt and Archangel. Fine weather continuing over Great Britain and France.

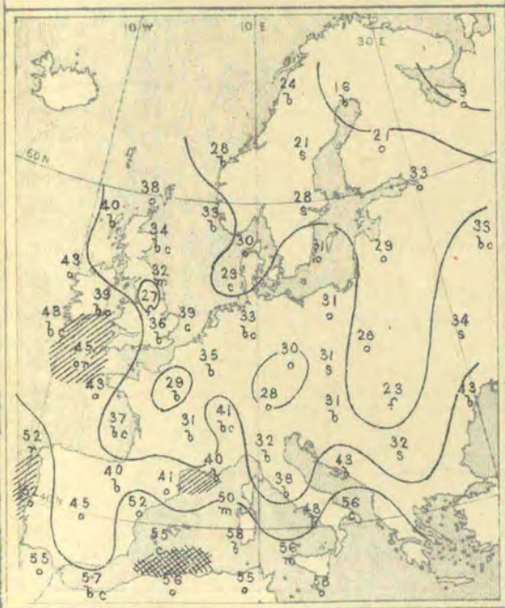
Temperature inclined to rise a little over Great Britain, Hungary, and southern Russia, fallen in most other places; still very low generally for time of year. Readings exceeding 50° at most of the Mediterranean stations, in Portugal, and over south-eastern Europe; exceeding 40° in the south of France and in the west and south-west of our Islands; lower elsewhere. Lowest, 14° at Haparanda, 16° at Archangel, 23° at Bodö, 24° at Kuopio, 29° at Helsingfors and St. Petersburg, and as low as 34° at Oxford, 35° at Paris, and 36° in London. Rising to 50° and more at some Irish stations and Cambridge, as well as in west and south of France, to 60° and more in Italy, 70° at Palermo, and to nearly 80° over some parts of Algeria. Succeeding night very cold over Great Britain and France.

Wind light and anticyclonic over western Europe (South-Easterly in Ireland, North-Westerly to Northerly elsewhere), but fresher and cyclonic over northern Europe (North-Easterly to Northerly over Sweden and Finland, Southerly at St. Petersburg and Moscow). Light and very variable over eastern and southern Europe as a whole, but very strong from the Westward at Sanguinaire, fresh from North-West at Toulon. Becoming more Southerly in Ireland later and increasing in force, and blowing hard from the Northward along the Swedish coast. No other change of importance.

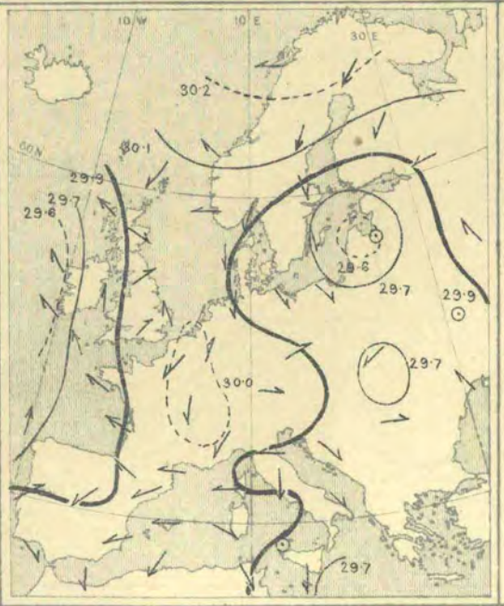
Barometer highest, 30·0 ins. and more over Lapland, and also in an elongated anticyclone covering the British Isles, the Bay of Biscay, north of Spain, and west of France. Lowest, 29·3 ins. and less in a well-formed depression over the Gulf of Finland, and below 29·7 ins. in a "V"-shaped secondary over northern Italy. Gradients steep over Finland and Gulf of Bothnia, slight elsewhere. Falling briskly in Ireland later, over which country a depression seemed to be spreading from the Atlantic.

Wednesday, 1st April.

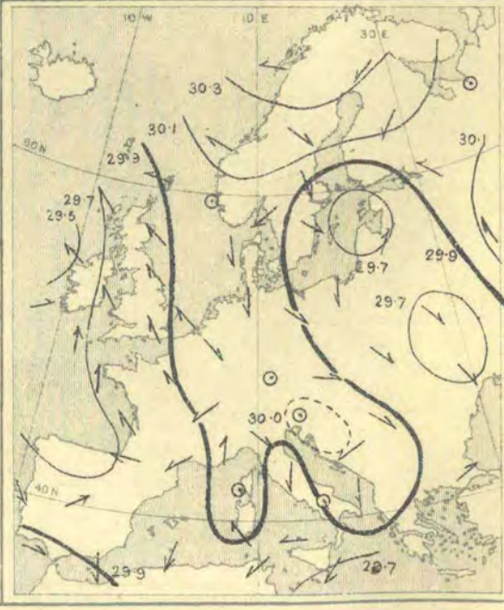
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather still dull and unsettled over Finland, Sweden, the Baltic, and western Russia, with snow in several places; much finer than of late over the North Sea and France, but becoming unsettled and rainy over the western part of the British Isles, the north-west of Spain, and the adjacent parts of the Atlantic. Rain later on all our western and northern coasts, heavy at Donaghadee and Pembroke; snow in Sweden and Germany. Halos in several parts of England.

Temperature rising a little in the extreme west; morning readings exceeding 50° at many Spanish, Algerian, and Italian stations, and at Lisbon; touching 48° at Valencia Island, lower elsewhere; below 40° over England, and below 30° over northern and central Europe; as low as (1) 9° at Archangel, 16° at Haparanda, 21° at Kuopio and Hernösand, 24° at Bodö, Christiansund, and Hangö, 29° at Riga; (2) 23° at Lemberg, 28° at Warsaw, Cracow, and Munich, 29° at Paris. Rising to 60° or more in the south and south-west of our Islands later, to 55° or more over southern Europe, and to 60° or more in Algeria.

Wind Easterly to Northerly over northern Europe and blowing strongly in some places; Westerly and North-Westerly over Germany and Austria, South-Easterly in the south of Russia. Variable in most other places, but Southerly to South-Easterly on the west coasts of the British Islands and over the Bay of Biscay, and blowing strongly at several stations. The Southerly and South-Easterly wind spreading all over our Islands and France later, but not blowing hard.

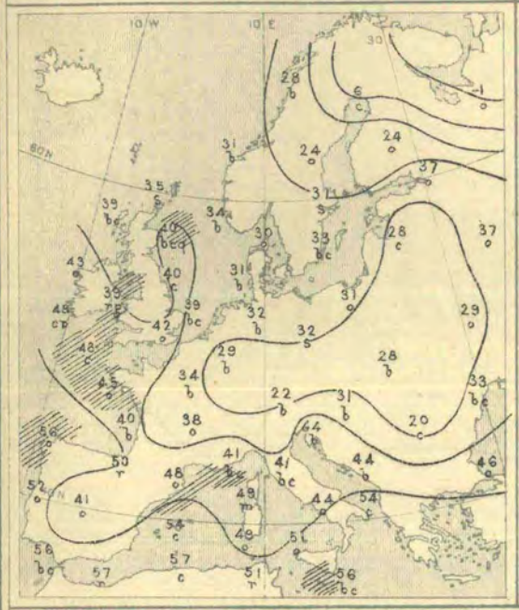
Barometer highest, 30·2 ins. and more to 30·0 ins. over Lapland, Finland, and northern parts of Norway and Sweden; 30·0 ins. and more over Belgium and the east of France, and exceeding 29·9 ins. all over the North Sea, the eastern half of Great Britain, as well as France, south Germany, and the Mediterranean. Lowest, 29·6 ins. and less in a depression over the Baltic Provinces, and also over the Atlantic off the west of Ireland; 29·7 ins. and less over Hungary. Falling slowly over western Europe later; changing irregularly on Continent.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

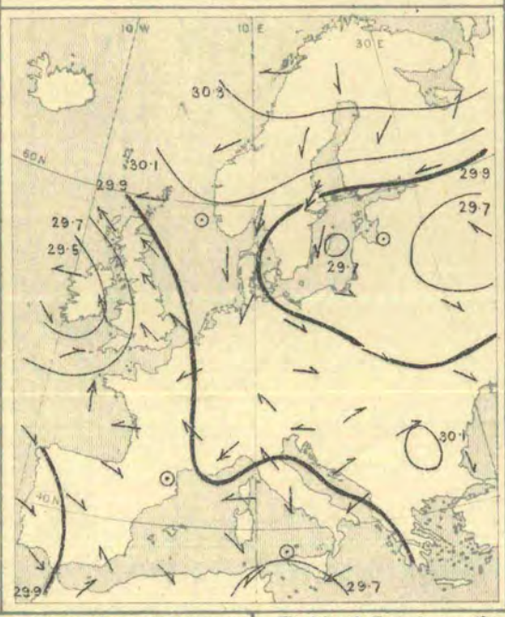
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 2nd April.

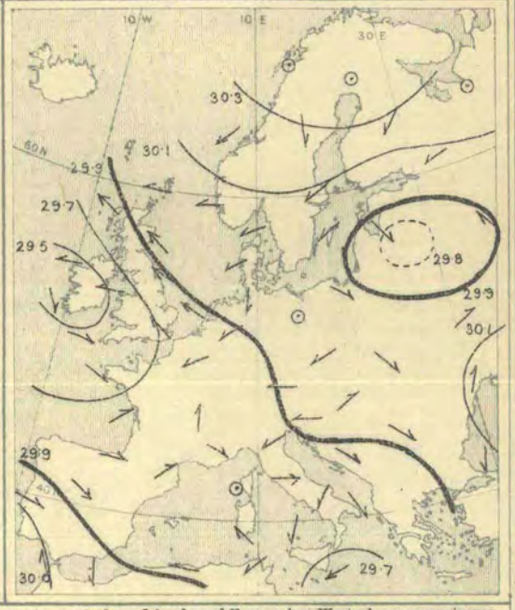
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fair over the greater part of western and central Europe, as well as in the south of France and north of Italy, but rainy in Wales and the north of Ireland. Dull elsewhere, with snow at several of the Baltic stations and rain in Algeria, as well as at Biarritz and Buda Pesth. Rain or sleet falling later in all the more western parts of our Islands and France, as well as in isolated parts of our other districts. The newspapers report considerable quantities of snow in north Wales.

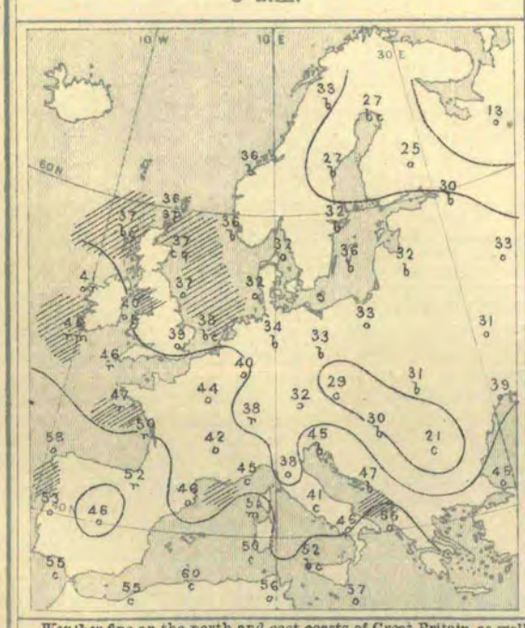
Temperature highest, 57° at Oran and Algiers, 56° at Corunna, San Fernando, Nemours, Malta, and Sfax, and 54° at Oporto, Palma, and Brindisi; above 50° at most of the Mediterranean stations, but considerably below that point over the Riviera and northern Italy. Lowest, −1° Fahr. at Archangel, +6° at Haparanda, 14° at Uleaborg, 22° at Munich, and 24° at Hernösand and Kuopio; below the freezing point over northern and central Europe generally, and below 40° over all the more northern and eastern parts of Great Britain. Daily maxima below 50° in most parts of the United Kingdom, and below 45° at most of our northern and eastern stations. Thermometer exceeding 60° in many parts of Spain, Italy, and Algeria.

Wind South-Easterly over the greater part of our Islands and France, but Westerly on our extreme south-west coasts; strong in force in the north of Ireland and the western parts of Great Britain. Light from the Eastward in the west of Norway, and also over the greater part of France. North-Easterly over Finland and Sweden, with a gale at Stockholm, Westerly over Germany, Austria, and the south of Russia; variable in Spain, Italy, and Algeria. Subsequently increasing to a strong breeze from the South-Eastward in the north and east of our Islands, but shifting to the Westward in the west of France; no important change elsewhere.

Barometer highest, 30·3 ins. and upwards over the extreme northern parts of Scandinavia and Russia; 30·0 ins. and upwards over Austria, European Turkey, and the Black Sea; 29·9 ins. and upwards over Portugal. Lowest, 29·5 ins. and less in a depression lying over Ireland and the St. George's Channel; 29·7 ins. and less in other disturbances lying respectively over Gothland, central Russia, and the neighbourhood of Malta. Irish depression subsequently moving slowly southwards and beginning to disperse.

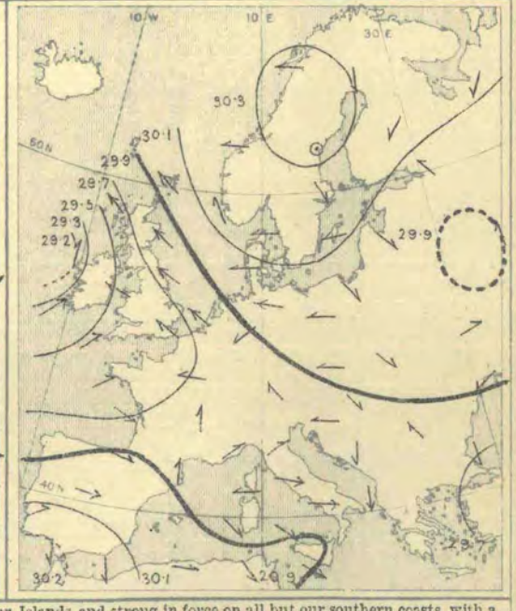
Friday, 3rd April.

Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.

Barometer and Wind. — 6 p.m.



Weather fine on the north and east coasts of Great Britain, as well as over Sweden and many parts of central Europe. Cloudy or overcast elsewhere, with rain in the south-west of our Islands and the west of France, snow showers at Sumburgh Head. Rain falling during day in most parts of the United Kingdom, France, the north of Italy, and in Switzerland, but weather [illegible] roving somewhat on our south-west coasts later.

Temperature highest, 58° to 60° on southern sides and above 50° over the other parts of the Mediterranean, as well as on the coasts of the Spanish Peninsula. Lowest, 13° at Archangel, 21° at Hermanstadt, 22° at Uleaborg, 25° at Kuopio, 27° at Haparanda and Hernösand; below the freezing point in most parts of northern and central Europe, and below 40° in the north and east of our Islands. Daily maxima below 45° in all the more northern and eastern parts of Great Britain, and below 50° at all but our extreme southern and south-western stations; exceeding 60° on many of the Mediterranean coasts and touching 72° at Cape Bearn.

Wind South-Easterly over our Islands and strong in force on all but our southern coasts, with a gale at Spurn Head. Light or moderate from the Eastward over Scandinavia, Denmark, Germany, and the Netherlands, from the North-Eastward in Finland, and from the Northward over the Baltic Provinces, as well as in the south of Italy. Light from the Southward or South-Westward over the greater part of France and Spain, and from the Southward or South-Eastward in Algeria. Subsequently veering to the South-Westward in the south-west of our Islands and to the Westward in the west of France.

Barometer highest, 30·3 ins. and upwards in an anticyclone lying over the north of Scandinavia, 30·1 ins. and upwards in another system lying over Morocco and the south of Spain. Lowest, 29·3 ins. and less in a depression lying off the south-west of Ireland, 29·7 ins. and less in a shallow area lying to the southward of Italy, 29·8 ins. and less in a well-marked, though not deep disturbance lying over western Russia. Depression to south-westward of Ireland subsequently moving slowly north-eastwards and barometer rising on all our southern coasts.

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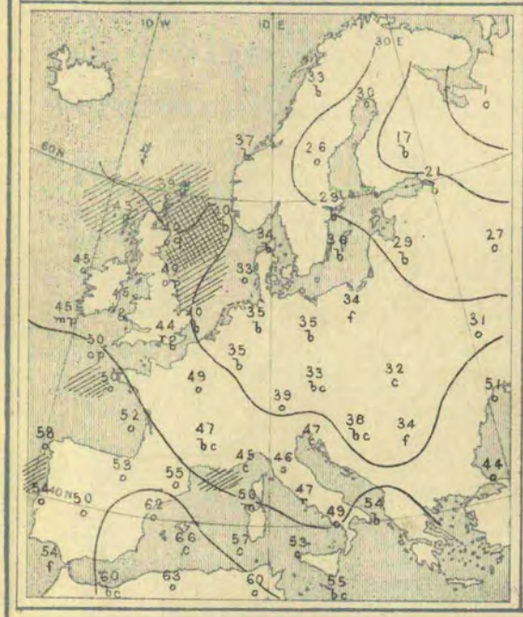
Saturday, 4th April.

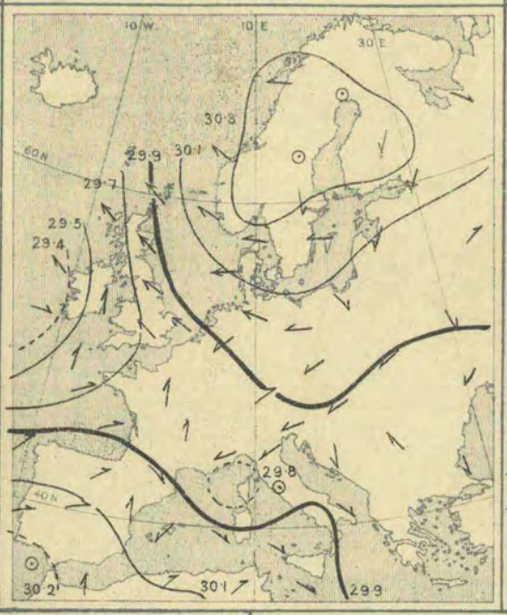
Temperature and Weather.

8 a.m.

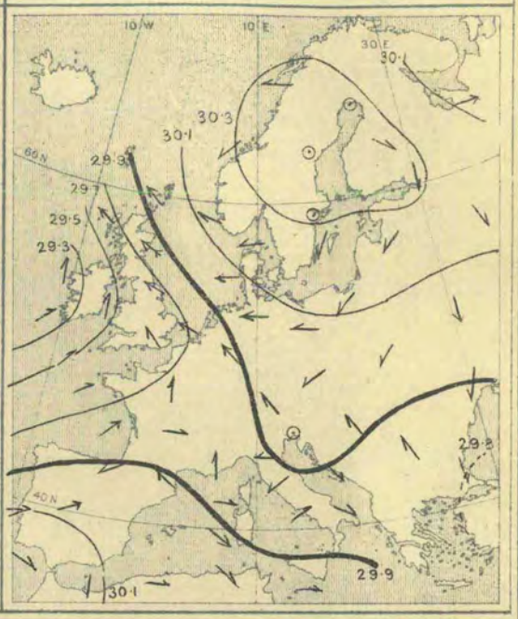


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over northern, eastern, and central Europe, as well as on the southern side of the Mediterranean; cloudy or overcast in most other places, unsettled and showery over Ireland, England, and the east of Scotland. Rain later over Ireland, England, France, and western Germany (heavy in many places), also at several stations in south-eastern Europe, but weather remaining fine in the north and north-east.

Temperature rising over south-western, western, and central Europe, as well as the British Islands. Morning readings 60° and more on the Algerian coast, at Palma, and Barcelona; exceeding 50° at the Spanish and Portuguese stations and ranging between 40° and 50° over the British Islands; lower over central, eastern, and northern Europe, and as low as 1° Fahr. at Archangel, 17° at Kuopio, 21° at St. Petersburg, 22° at Uleaborg, 27° at Moscow, 28° at Kharkov, and 29° at Cracow. Rising during day to 50° and more in many parts of England and France, to 60° and more in several parts of southern Europe, and to 70° at Cape Béarn.

Wind light from between north and east over northern Europe, the Baltic, and north Germany; strong to a gale from South and South-East over the northern parts of the United Kingdom, moderate South-Easterly to Southerly over Ireland and England, Westerly at Valencia Island, South-Westerly over Spain, the Bay of Biscay, and north of France; North-Westerly in the south of France, Easterly over northern Italy. Very variable elsewhere. Becoming more generally Easterly over northern Europe later; no great change elsewhere.

Barometer highest, (1) 30·3 ins. and more to 30·6 ins. in a large anticyclone covering northern Europe and the Baltic; (2) 30·2 ins. and more in another covering the Iberian Peninsula and the southern and south-western shores of the Mediterranean. Lowest, 29·4 ins. and less in a large low-pressure system off the west of Ireland and about 29·8 ins. both over Corsica and the Black Sea. Depression near Ireland spreading Eastwards later in the form of a "V"-shaped secondary, which at 6 p.m. covered England.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The weather during this period was of two distinct types. In the first pressure was high both over the Atlantic and northern Europe, while a complex depression moved south-eastwards over the North Sea to north Germany, causing a continuation of strong cold North-Westerly winds over the whole of our Islands, accompanied by squalls of snow, sleet, and hail; these continued till nearly the close of March. A change then took place; pressure gave way over the Atlantic, a depression of considerable magnitude reached the Irish coast, and spread south-eastwards and southwards over England and France, while over northern Europe the barometer rose. South-Easterly gales set in over the northern parts of our Islands and the North Sea, but milder winds from the South-Westward over the south-western parts of the United Kingdom and France. In these regions temperature recovered somewhat, but over northern Europe it remained very cold and inclement, with winds from an Easterly direction.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 74.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	21·9	?	24	?	EASTBOURNE	33·5	?	37	?
OSWALDKIRK	30·2	?	34	?	TORQUAY	33·3 *	?	37 *	0
WORKSOP	22·5	− 3·0	25	− 4	ARLEY (County Cavan)	18·5	?	21	?
THURCASTON	24·2	+ 0·4	27	0					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 14]. *Third Series.* WEEK ENDING SATURDAY, 11TH APRIL, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 80.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.														
0. SCOTLAND, NORTH	54	21	47·3	33·4	40·0	2 below.	15	+ 1	31	+ 6	147	+35	491	+ 32
1. SCOTLAND, EAST	55	25	45·1	34·1	39·4	3 below.	9	−16	28	+ 3	149	−19	547	+ 45
2. ENGLAND, N.E.	51	31	43·2	36·2	39·6	4 below.	3	−20	20	− 4	130	−29	520	+ 71
3. ENGLAND, EAST	56	32	46·8	37·0	41·7	2 below.	13	−19	19	− 5	167	−32	620	+112
4. MIDLAND COUNTIES	59	28	47·1	36·6	41·6	3 below.	14	−18	21	− 4	192	−28	587	+ 92
5. ENGLAND, SOUTH	58	31	48·6	37·9	43·0	3 below.	24	− 9	11	− 7	179	−63	526	+140
Principal Grazing, &c., Districts.														
6. SCOTLAND, WEST	52	29	46·6	35·6	40·9	2 below.	13	−11	24	+ 5	174	+ 6	391	+ 17
7. ENGLAND, N.W.	55	30	46·4	37·9	42·0	2 below.	12	−13	11	− 8	179	+ 8	400	+ 21
8. ENGLAND, S.W.	59	27	48·8	38·7	43·5	2 below.	24	− 5	9	− 6	222	−37	396	+103
9. IRELAND, NORTH	55	25	48·2	36·5	42·1	3 below.	24	− 6	15	0	240	+ 6	345	+ 16
10. IRELAND, SOUTH	56	25	41·1	36·7	43·5	2 below.	33	− 1	15	+ 2	335	+16	279	+ 26
— CHANNEL ISLANDS	56	36	49·5	42·5	45·9	1 below.	27	− 5	0	− 5	298	−24	161	+ 41

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 80.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.															
0. SCOTLAND, NORTH	1	less than ½.	6 less.	66	− 3	14·8	+ 0·7	33	+ 1	35	+ 1	238	+ 19	24	+ 1
1. SCOTLAND, EAST	2	3	2 less.	40	−13	5·3	− 2·9	22	− 4	23	− 6	276	+ 10	28	0
2. ENGLAND, N.E.	4	7	2 more.	47	− 2	4·5	− 1·5	15	−13	16	−14	270	+ 35	27	+ 3
3. ENGLAND, EAST	5	5	1 less.	48	0	4·2	− 1·7	10	−23	11	−26	302	+ 21	30	+ 2
4. MIDLAND COUNTIES	4	5	0 (average)	41	− 6	4·6	− 2·4	12	−17	15	−16	283	+ 35	28	+ 3
5. ENGLAND, SOUTH	4	2	3 less.	42	− 4	5·9	− 1·2	15	−15	16	−19	296	+ 38	29	+ 3
Principal Grazing, &c., Districts.															
6. SCOTLAND, WEST	1	2	5 less.	48	−10	9·4	− 4·9	21	−15	23	−12	271	+ 32	27	+ 2
7. ENGLAND, N.W.	3	2	3 less.	38	−15	4·8	− 3·7	15	−14	16	−16	279	+ 41	28	+ 3
8. ENGLAND, S.W.	2	1	5 less.	40	−14	7·0	− 4·0	23	−14	24	−15	343	+ 46	33	+ 3
9. IRELAND NORTH	2	1	4 less.	51	−11	5·6	− 3·6	21	− 8	23	−10	291	+ 49	29	+ 4
10. IRELAND, SOUTH	2	2	4 less.	44	−12	5·7	− 5·4	34	− 1	36	− 2	334	+ 39	33	+ 3
— CHANNEL ISLANDS	2	less than ½.	5 less.	45	−14	6·1	− 2·9	30	−12	33	−12	438	+ 81	43	+ 8

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather was showery and changeable, with thunder and lightning in places, during the first two days of the period, but afterwards became dry, with generally overcast skies.

Temperature rose considerably during the earlier part of the time, and maxima varying between 56° and 59° were recorded in most of the English districts and between 52° and 56° over Ireland and Scotland. During the latter part of the week, however, the maxima were generally below 50°. The lowest of the minima were registered on the 8th, when the thermometer fell to 21° in "Scotland N.," 25° in "Scotland E." and over Ireland, to between 27° and 32° in most other districts, and to 36° in the "Channel Islands." The average values for the week have been in most cases from 2° to 4° below the mean for the time of year.

Rainfall has been more than the mean in "England N.E." and about equal to it in the "Midland Counties." In all other districts a deficit is shown.

Bright Sunshine has been less prevalent over the Kingdom as a whole than for some time past, the percentage of the possible duration having ranged from 11 to 24 over England, from 23 to 35 in Scotland, and from 23 to 36 in Ireland.

Barometer and Wind.—During the early part of the week a depression moved southwards over Ireland, while some irregularities in pressure were observed over England also. The complex system occasioned moderate or fresh South-Westerly and Southerly winds over the western and southern parts of the Kingdom and fresh or strong Easterly breezes in the north. By the 7th the barometer had risen briskly, and during the remainder of the period the distribution of pressure was generally anticyclonic and the winds light or moderate from between North and East. At the end of the week, however, a depression had appeared off our south-western coasts and the wind in the west had shifted to the South-Eastward.

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II.—DATA from which the SUMMARY on page 79 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	48	32	44·6	35.4	39·8	− 0·3	7	24	1	0·01	−0·50	*	*	*	*
	Stornoway	50	25	47·1	32·4	39·4	− 2·5	14	35	0	—	−0·68	33·1	+ 0·9	35	+ 1
	Wick	50	32	46·9	37·4	41·9	+ 0·1	14	18	1	0·04	−0·36	*	*	*	*
	Lairg 𝔖	53	21	46·6	29·3	37·5	− 3·7	13	45	2	0·18	−0·39	*	*	*	*
	Glencarron 𝔖	54	24	48·3	30·6	39·0	− 2·5	18	41	0	—	−1·10	*	*	*	*
	Fort Augustus 𝔖	54	24	48·8	34·2	41·2	− 1·3	19	30	0	—	−0·50	29·0	?	31	?
	Fort William 𝔖	54	28	49·1	34·4	41·4	− 2·2	20	29	0	—	−0·88	37·9	?	40	?
1. SCOTLAND, E.	Nairn	55	25	48·9	30·6	39·3	− 3·4	19	42	1	0·01	−0·30	*	*	*	*
	Aberdeen	47	35	44·4	37·1	40·6	− 2·0	7	18	2	0·05	−0·46	26·5	− 4·7	28	− 6
	Braemar 𝔖	47	28	40·8	31·3	35·8	− 3·5	0	43	2	0·34	−0·23	27·8†	? †	29†	?†
	Ochtertyre 𝔖	54	31	46·7	34·4	40·3	− 2·3	13	28	2	0·40	−0·15	*	*	*	*
	Leith	53	34	46·7	36·7	41·5	− 2·2	13	20	2	0·09	−0·28	*	*	*	*
	Marchmont 𝔖	51	32	43·3	34·3	38·6	− 3·1	4	26	4	0·81	+0·24	17·5	?	19	?
2. ENGLAND, N.E.	Alnwick Castle	45	35	41·9	36·7	39·2	− 2·5	0	20	3	0·35	−0·18	*	*	*	*
	Durham	48	32	43·2	34·9	38·9	− 3·8	3	25	4	1·01	+0·50	14·6	−11·2	16	−11
	Shields	48	31	43·7	35·3	39·3	− 3·5	5	23	4	1·00	+0·58	*	*	*	*
	Scarborough 𝔄	45	35	42·1	37·4	39·6	− 4·2	0	15	3	0·82	+0·35	*	*	*	*
	York	51	31	46·1	35·3	40·4	− 3·9	11	24	4	0·57	+0·15	13·1	−14·9	14	−16
	Spurn Head	44	34	42·4	37·7	40·0	− 3·0	1	16	5	0·24	−0·10	*	*	*	*
3. ENGLAND, E.	Hillington 𝔄	51	33	47·3	37·8	42·3	− 2·0	19	12	5	0·38	−0·02	9·8	−21·4	11	−22
	Yarmouth	52	35	43·4	38·0	40·6	− 2·2	4	14	5	0·30	−0·11	*	*	*	*
	Geldeston	53	32	46·2	36·7	41·2	− 3·2	12	20	5	0·26	−0·09	11·0	−24·1	12	−27
	Cambridge	56	32	49·6	36·7	42·8	− 2·0	28	15	5	0·52	+0·14	8·8	−26·0	9	−26
	Rothamsted	55	32	47·3	36·0	41·4	− 2·7	15	23	6	0·86	+0·39	9·1	?	10	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	52	32	47·0	35·6	41·0	− 3·4	14	24	5	0·60	+0·22	*	*	*	*
	Loughborough	57	32	46·4	37·3	41·6	− 3·1	12	18	5	1·06	+0·65	*	*	*	*
	Stamford (Ketton Hall)	54	31	46·9	37·4	41·9	− 2·8	14	18	5	0·30	?	*	*	*	*
	Cheadle 𝔄	48	28	44·6	35·1	39·6	− 3·2	7	24	4	0·40	−0·10	*	*	*	*
	Churchstoke 𝔄	57	29	46·4	35·9	40·9	− 2·0	12	23	3	0·47	+0·03	13·0	−17·1	14	−18
	Hereford 𝔄	59	31	49·0	37·9	43·2	− 1·6	26	11	3	0·30	−0·12	*	*	*	*
	Cirencester	55	30	47·3	35·9	41·3	− 2·2	15	23	3	0·15	−0·34	14·5	−16·2	16	−18
	Oxford	57	33	49·3	37·9	43·3	− 1·7	26	11	4	0·32	−0·08	18·8	−12·6	20	−14
5. ENGLAND, S.	London	58	34	49·4	38·4	43·6	− 2·5	26	10	4	0·19	−0·23	14·6†	−12·4†	16†	−12†
	Strathfield Turgiss 𝔄	56	32	50·0	36·7	43·0	− 2·2	29	15	6	0·44	+0·04	*	*	*	*
	Dungeness	50	31	48·6	38·3	43·2	− 1·6	24	10	3	0·10	−0·31	*	*	*	*
	Hastings (St. Leonards)	49	33	47·0	38·1	42·3	− 3·7	18	11	3	0·20	−0·27	13·7	−23·9	15	−25
	Southampton	55	34	50·2	38·6	44·1	− 2·4	29	10	2	0·06	−0·43	18·4	−18·1	20	−19
	Hurst Castle	51	34	47·7	39·3	43·3	− 2·0	20	8	4	0·15	−0·29	*	*	*	*
	Stowell 𝔄	51	33	47·0	35·9	41·2	− 3·7	14	23	5	0·18	?	14·5†	? †	16†	? †
6. SCOTLAND, W.	Laudale (Loch Sunart)	52	29	48·0	34·9	41·1	− 2·7	17	27	0	—	−1·10	*	*	*	*
	Glasgow	52	32	45·6	35·6	40·4	− 2·6	10	24	2	0·37	−0·16	12·5	−14·3	13	−15
	Ardrossan	52	33	46·7	36·1	41·2	− 2·8	13	23	1	0·04	−0·47	*	*	*	*
	Glenlee 𝔖	52	32	46·4	35·5	40·7	− 1·2	12	24	2	0·23	−0·50	*	*	*	*
	Douglas (Isle of Man)	49	32	46·4	36·0	41·0	− 2·3	12	23	2	0·23	−0·32	29·8	− 8·2	32	− 8
7. ENGLAND, N.W.	Newton Reigny	49	31	45·0	34·8	39·7	− 2·7	8	26	4	0·18	−0·28	12·6	−18·2	13	−20
	Stonyhurst	50	32	45·5	36·8	40·9	− 2·7	10	19	3	0·06	−0·54	14·9	−14·2	16	−15
	Blackpool 𝔄	50	35	46·4	38·7	42·4	− 0·9	17	9	2	0·25	−0·18	? 14·3	? −15·7	? 15	? −17
	Manchester	48	30	45·7	36·3	40·8	− 3·3	10	21	4	0·29	−0·19	*	*	*	*
	Liverpool Obsy. (Bidston)	50	35	46·6	38·3	42·3	− 2·7	18	10	3	0·46	+0·08	*	*	*	*
	Llandudno 𝔄	55	38	48·0	39·8	43·7	− 2·1	21	6	0	—	−0·43	17·7	−10·8	19	−11
	Holyhead	53	38	47·9	40·6	44·2	− 1·2	21	4	2	0·10	−0·37	*	*	*	*
8. ENGLAND, S.W.	Llandovery	59	27	50·9	36·3	43·3	− 1·1	33	16	1	0·18	−0·52	*	*	*	*
	Pembroke	49	37	47·0	40·3	43·5	− 1·3	18	5	1	0·06	−0·40	20·3	−19·2	22	−20
	Arlington (N. Devon)	53	32	47·0	37·4	42·0	− 1·7	14	13	3	0·39	−0·30	*	*	*	*
	Cullompton 𝔄	55	32	48·4	36·5	42·2	− 2·7	25	15	2	0·07	−0·53	? 21·3	? −11·4	? 23	? −12
	Falmouth	52	38	49·2	40·3	44·5	− 1·3	25	5	2	0·10	−0·62	25·2	−12·6	27	−14
	Plymouth	55	38	51·6	40·8	45·9	− 1·4	32	3	1	0·01	−0·56	24·2	−13·3	26	−14
	Prawle Point	51	36	47·3	39·6	43·3	− 1·7	19	7	1	0·03	−0·45	*	*	*	*
9. IRELAND, N.	Malin Head	50	35	45·1	38·6	41·7	− 3·1	9	13	1	0·02	?	*	*	*	*
	Londonderry	54	31	50·6	36·4	43·2	− 1·8	32	16	2	0·09	−0·44	*	*	*	*
	Mullaghmore	52	32	48·3	38·3	43·1	− 2·5	23	10	1	0·18	−0·33	*	*	*	*
	Belmullet	53	39	49·9	40·7	45·1	− 1·7	27	4	4	0·15	?	*	*	*	*
	Markree Castle	54	25	49·8	33·2	41·1	− 3·5	22	33	1	0·09	−0·49	20·8	− 9·2	22	−12
	Brookeborough	52	26	47·4	33·7	40·2	− 2·9	15	30	1	0·28	−0·32	*	*	*	*
	Armagh	51	28	47·2	34·0	40·3	− 3·3	15	30	2	0·17	−0·33	22·3	− 6·4	24	− 7
	Donaghadee	50	38	46·3	39·9	43·0	− 1·4	16	6	2	0·18	−0·27	*	*	*	*
	Edgeworthstown	55	28	49·1	33·4	40·9	− 2·2	20	33	1	0·10	−0·46	*	*	*	*
10. IRELAND, S.	Dublin	52	33	48·1	38·5	43·1	− 2·5	22	10	3	0·29	−0·19	18·3	−16·7	20	−18
	Parsonstown	56	27	51·4	34·7	42·7	− 1·9	36	20	1	0·02	−0·48	28·3	− 5·9	30	− 7
	Kilkenny	55	29	50·3	35·4	42·5	− 2·0	31	18	1	0·02	−0·48	*	*	*	*
	Waterford	56	30	51·6	35·3	43·1	− 2·6	36	19	1	0·02	−0·60	*	*	*	*
	Roche's Point	53	35	50·9	41·4	45·9	− 0·5	30	2	4	0·47	−0·31	*	*	*	*
	Valencia	54	33	52·1	39·3	45·4	− 1·7	35	8	3	0·64	−0·22	54·0	+16·2	58	+18
	Killarney	56	25	? 52·4	? 31·9	? 41·7	? − 4·1	29	? 39	4	0·10	?	*	*	*	*
	Foynes	56	29	51·8	36·8	43·9	− 1·8	35	15	1	0·13	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	54	41	48·7	44·3	46·4	− 0·7	31	0	0	—	−0·53	*	*	*	*
	Jersey	56	36	50·3	40·7	45·3	− 2·0	29	4	3	0·08	−0·42	30·0	−12·0	33	−12

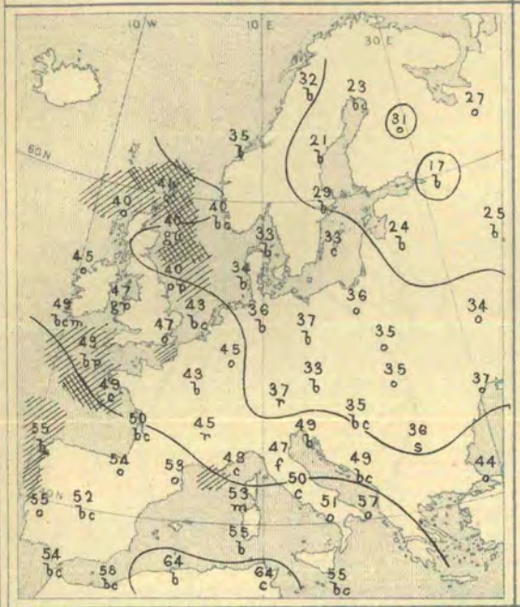
Stations marked 𝔄 are in connection with the Royal Meteorological Society, and those marked 𝔖 with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

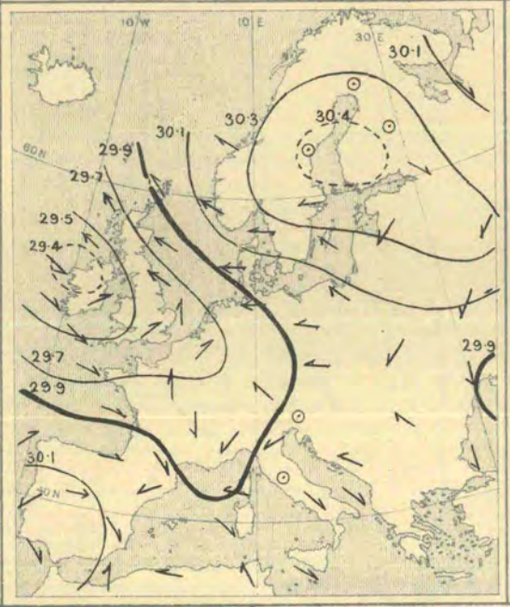
† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 5th April.

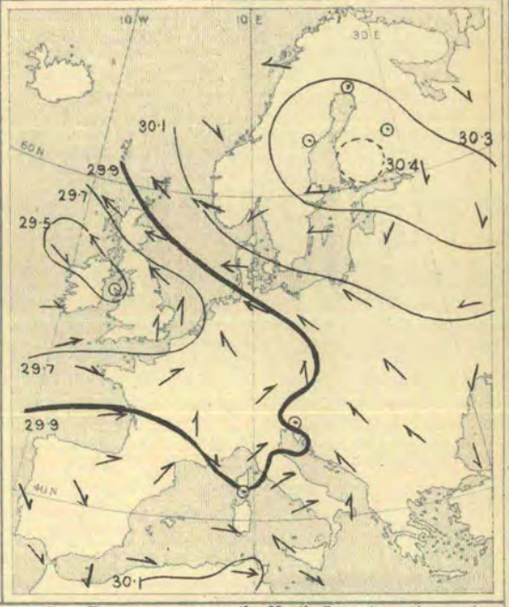
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright over northern and central Europe, as well as over Algeria and the south-eastern half of Spain; dull over south-eastern Europe, with some snow; very dull, unsettled, and rainy over the British Islands—except in the extreme north of Scotland and south-west of Ireland. Considerable falls of rain over our north-midland counties later, and also in the west and south of Germany; showers in many other parts of our Islands, with thunder in places, and in the north of France; fine bright conditions continuing over Scandinavia, north of Scotland, Denmark, north Germany, and the southern parts of France. Lightning seen on our south-west coasts in evening.

Temperature risen slightly over north-western Europe. Morning readings exceeding 60° on the Algerian coast, and exceeding 50° at nearly all the Mediterranean and Spanish stations. Exceeding 40° over the United Kingdom and France, lower elsewhere. Lowest, 17° at St. Petersburg, 21° at Helsingfors, Hangö, and Hernösand, and below 30° over nearly the whole of northern Europe. Rising during day to between 50° and 57° over England and the greater part of France, exceeding 60° in many parts of southern Europe, and exceeding 70° in Algeria.

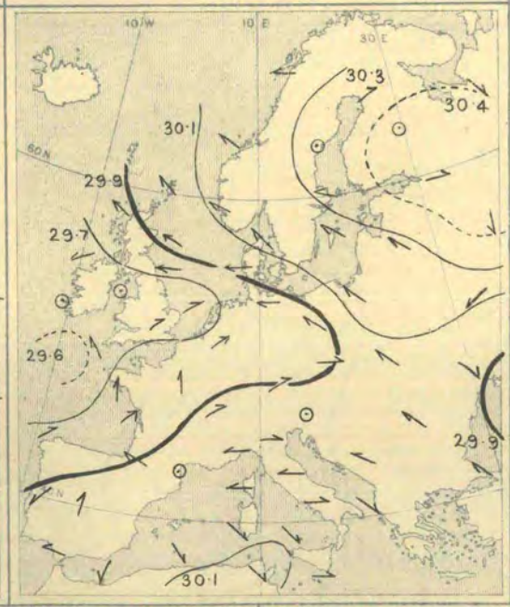
Wind (1) moderate Easterly over northern Europe, strong over the North Sea; strong to a gale from East and South-East over the northern parts of our Islands; (2) moderate to fresh Westerly and South-Westerly over Spain, the Bay of Biscay, our south-western and southern coasts, the Channel, and north of France, Southerly over the eastern parts of England. Very variable in direction elsewhere and of little force. Falling light in Norway later and becoming more variable. Moderate Southerly and South-Westerly breezes setting in over Italy.

Barometer highest, (1) 30·1 ins. and more to 30·0 ins. over the Iberian Peninsula and western and southern parts of the Mediterranean generally; (2) 30·2 ins. and more to 30·0 ins. in another system covering the whole of northern Europe and the Baltic. Lowest, 29·4 ins. and less in a depression over the north of Ireland, and 29·5 ins. to 29·7 ins. in a hollow stretching from our western coasts across England and the Netherlands to north Germany; 29·9 ins. and less over the Gulf of Genoa. Irish depression tending to fill up later and beginning to move southwards.

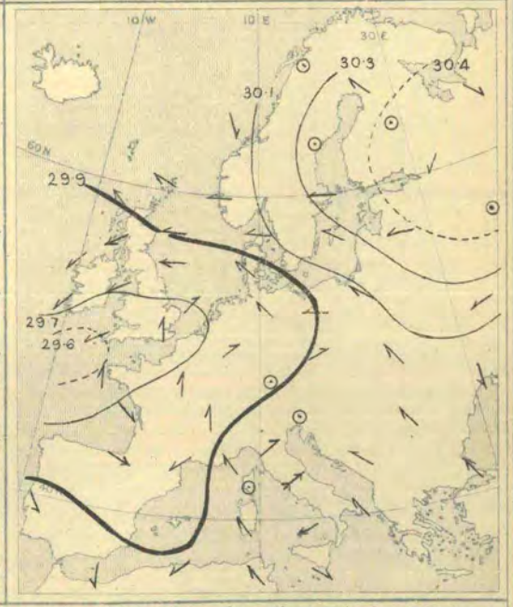
Monday, 6th April.

Temperature and Weather. — 8 a.m.

Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather dull and unsettled over the greater part of our Islands and the Continent, with steady rain over the north of England, as well as at some of the French, German, and Italian stations, and snow at Copenhagen and Kiev. Fine over Scandinavia and the northern parts of Russia and Germany, as well as in Algeria. Heavy rain falling during day in the west of France; thunderstorm occurring at Oxford in afternoon.

Temperature highest, 66° at Algiers, 62° at Nemours, 61° at Oran, and 60° at Palermo, La Calle, and Tunis; above 50° at nearly all the Mediterranean stations, as well as on the coasts of the Spanish Peninsula. Lowest, 18° at Haparanda, 20° at Hernösand, 23° at Archangel and Moscow, and 24° at Kuopio; below the freezing point in nearly all parts of northern Europe and below 40° on the north-east coasts of Great Britain. Daily maxima below 45° at most of our northern stations, but thermometer exceeding 55° over the southern parts of England, exceeding 60° over nearly the whole of southern Europe, and exceeding 70° in Algeria.

Wind strong from the Eastward or South-Eastward over the northern parts of our Islands and also in Denmark; light or moderate from the same quarters over Scandinavia, the Baltic, and north Germany. Light or moderate from the Southward in France, from the South-Eastward on our own south-west coasts, and from the South-Westward over Belgium and the south-east of England. Light and variable over Russia, the greater part of southern Europe, the Mediterranean, and Algeria. Subsequently shifting to the North-Eastward on our south-west coasts and to the Westward or North-Westward in the west of France.

Barometer highest, 30·4 ins. and upwards in a large anticyclone lying over the northern parts of Russia, 30·2 ins. and upwards over Tunis and eastern Algeria. Lowest, 29·6 ins. to 29·7 ins. in an irregularly-formed depression extending from the Atlantic across Ireland, England, and the north-west of France; 29·9 ins. and less in a shallow system lying over the Crimea. Depression over our Islands subsequently moving southwards and barometer rising in nearly all parts of the United Kingdom; no important change occurring on Continent.

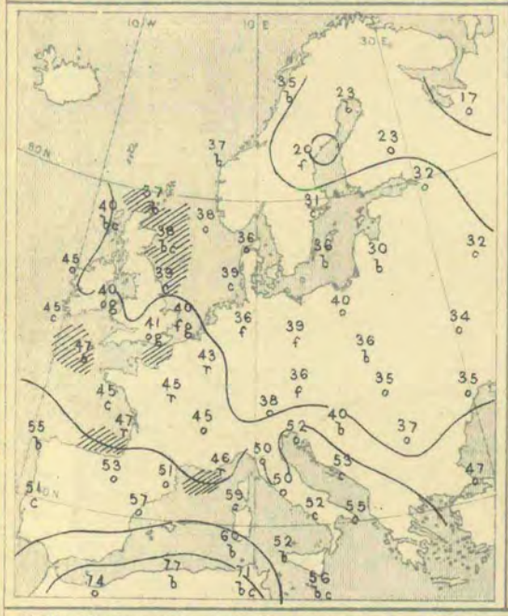
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons

III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 7th April.

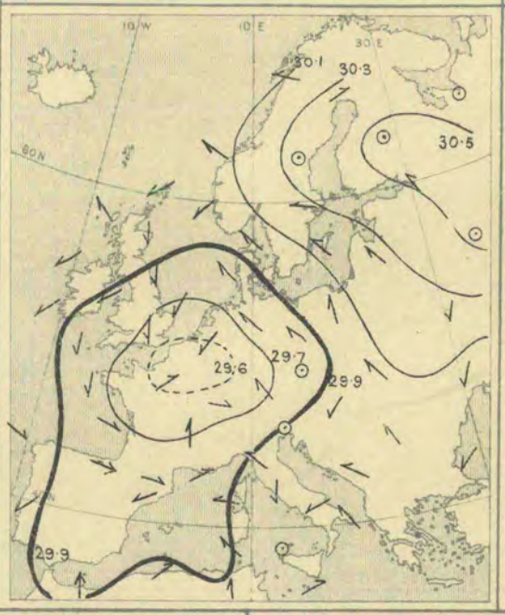
Temperature and Weather.

8 a.m.

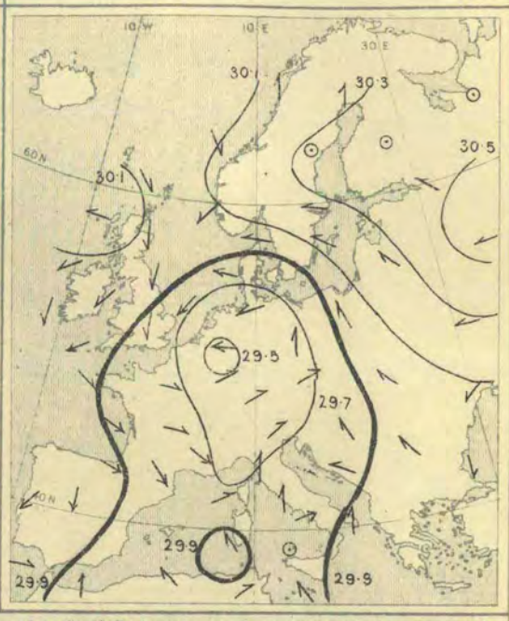


Barometer and Wind.

8 a.m.



6 p.m.



Weather cloudy or overcast over the greater part of our Islands and the Continent, with rain over France, Belgium, and western Germany, and snow at Faerder. Fine in the northern parts of Scotland and Scandinavia, as well as over Finland, eastern Germany, Algeria, and the south of Italy. Sky clearing later in the west of our Islands, but showers falling in the east and south-east and heavy rain at some of the French and German stations. Thunderstorms occurring at Wiesbaden and Lyons.

Temperature highest, 67° to 77° at the Algerian stations, where the Sirocco was blowing; above 50° on the shores of the Mediterranean generally, as well as on the coasts of the Spanish Peninsula (60° at Cagliari, 57° at Barcelona, 56° at Malta). Lowest, 17° at Archangel, 20° at Hernösand, 23° at Haparanda and Kuopio, and 25° at Helsingfors; below the freezing point over northern Europe generally, and below 40° in many parts of the United Kingdom. Daily maxima below 50° over nearly the whole of our Islands, with frost in many places at night. Thermometer exceeding 60° over southern Europe generally, exceeding 70° over Sicily and some parts of Spain, and rising considerably above 80° in Algeria.

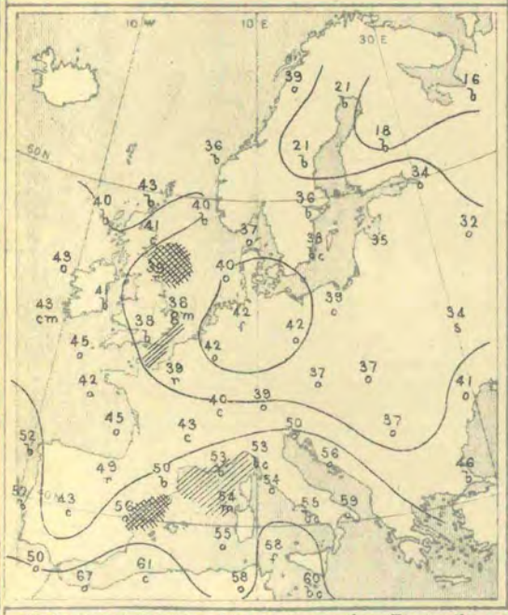
Wind moderate from the Eastward or South-Eastward over the greater part of northern and central Europe, and also in the north of Scotland, and from the North-Eastward or Northward over Ireland, England, and the north of France; Westerly over the central and southern parts of France; Southerly in Algeria, strong in force at Nemours; light and variable over Italy and eastern Europe. No important change during day.

Barometer highest, 30·5 ins. and upwards in an anticyclone lying over the northern parts of Russia, 30·0 ins. and upwards in a large area extending thence to the north of Scotland, and also in another system lying to the westward of the Iberian Peninsula. Lowest, 29·6 ins. and less in a depression lying over the Netherlands and the north-east of France. Depression subsequently moving slowly eastwards and new high-pressure system advancing over our Islands from the north-westward.

Wednesday, 8th April.

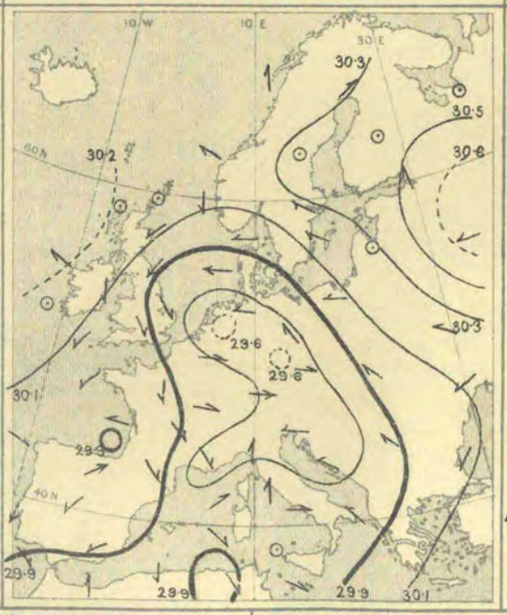
Temperature and Weather.

8 a.m.

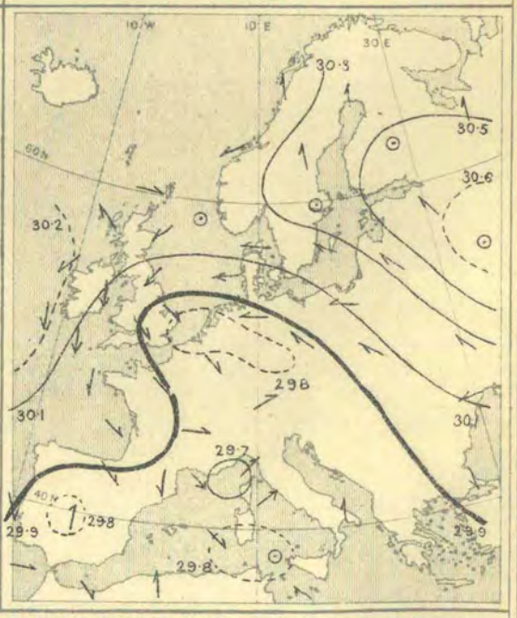


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over northern Europe, the northern and western parts of the British Islands, Portugal, and at some of the Mediterranean stations; dull and unsettled as a whole elsewhere. Snow falling at Kiev, sleet in the north-east of England, rain in several parts of France, Austria, and south Germany. Rain later over the eastern and southern parts of our Islands, the north of France, and Germany; heavy falls at Biarritz and Besançon.

Temperature risen a little over Austria, Poland, and many parts of northern Europe, fallen over the greater part of France; morning readings very low for the time of year over the western countries generally. Exceeding 60° on the southern side of the Mediterranean, exceeding 50° at the Italian and Adriatic stations and on the coasts of Spain and Portugal; lower elsewhere, and as low as 16° at Archangel, 18° at Kuopio, 21° at Haparanda and Hernösand, 30° at Helsingfors, 32° at Moscow, and 34° to 38° over the inland parts of our own Islands. Rising to 50° or more at Wick, Valencia, and Prawle Point later, to 60° and more over southern Europe generally, and to 70° or more over Algeria and southern Italy, highest of all 84° at Brindisi.

Wind moderate to strong from the Eastward over the Baltic and North Sea, North-Easterly to Northerly over England, the Channel, and Spanish Peninsula, chiefly South-Easterly over eastern Germany, Poland, and Hungary. Very variable elsewhere and almost calm over northern Europe, Scotland, and Ireland. A moderate North-Westerly gale reported at Toulon. No important change occurring later.

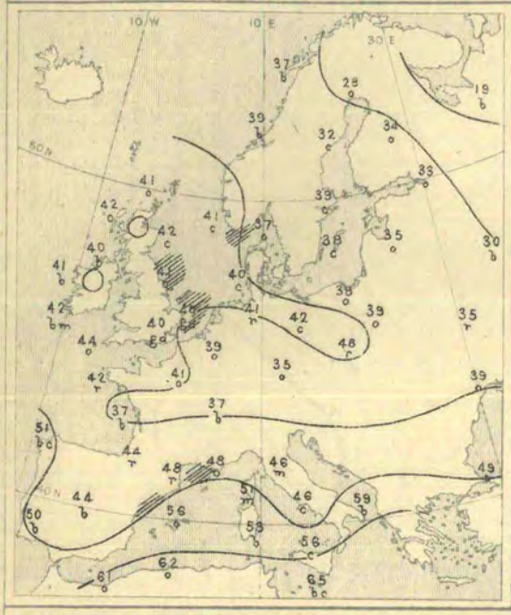
Barometer highest, 30·6 ins. and more to 30·2 ins. in a large anticyclone lying over Russia and spreading in the form of a ridge across Finland, Sweden, and Norway; 30·2 ins. and more in another system lying to the north-westward of our Islands; and exceeding 30·0 ins. in the north-west of Spain. Lowest, 29·7 ins. and less in a depression of very irregular form stretching from Holland across western Germany, southern Germany, and Austria to Switzerland, northern Italy, and the Riviera; a well-marked minimum lying over Holland. The last-named disturbance tending to fill up later; new disturbance appearing over central Spain and the Gulf of Genoa.

Judd & Cº Lith 73 & 75, Farringdon Rd & Doctors' Commons

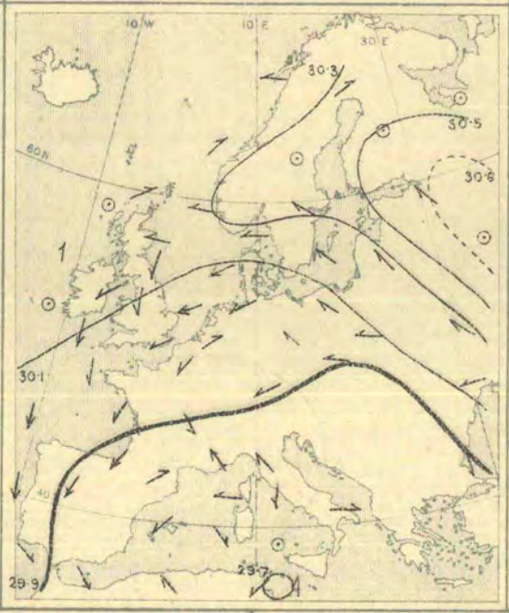
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 9th April.

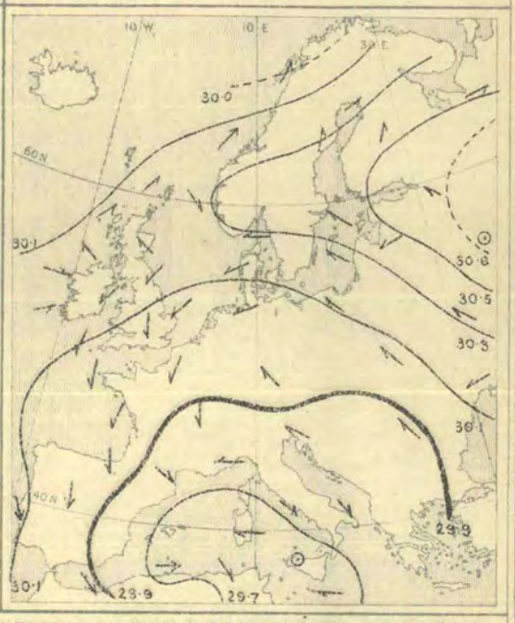
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fine in Ireland, Scotland, and the west of Norway, as well as over the greater part of southern Europe. Dull elsewhere, with rain at many of the English, French, and German stations, and also in the south of Russia. Some improvement taking place later over the greater part of England and France, but weather remaining dull and gloomy in London throughout the day. Thunderstorm occurring at Oran at night.

Temperature highest, 65° at Malta, 62° at Algiers and Sfax, and 59° at Brindisi; above 50° at most of the Mediterranean stations, and also on the coast of the Spanish Peninsula. Lowest, 19° at Archangel, 28° at Haparanda, 30° at Moscow, 31° at Ulealeborg, and 32° at Hernösand; below 40° over Russia and northern Europe generally, and also over the central parts of the United Kingdom. Daily maxima below 45° at many of the English stations, but thermometer exceeding 50° in some parts of Ireland and Scotland, and exceeding 60° over southern Europe generally; reaching 79° at Malta.

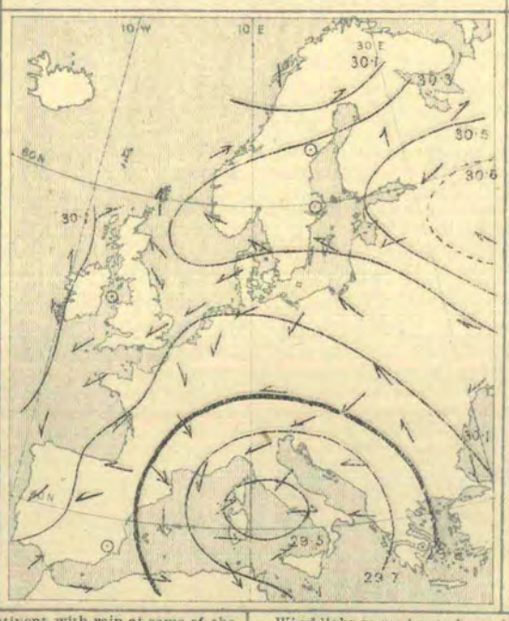
Wind moderate or fresh from the Eastward over Denmark and central Europe, from the North-Eastward over England and France, and from the Northward in Spain. Light from the Southward or South-Westward in the extreme north-west and north of our Islands, and also in the north of Scandinavia. Variable in Italy and Algeria. No important change occurring during day, excepting on the Algerian coasts, where strong Westerly to North-Westerly winds set in.

Barometer highest, 30·6 ins. and upwards in an anticyclone lying over central Russia, 30·2 ins. and upwards in a long band extending thence across Scandinavia and the North Sea to Scotland and the north of Ireland. Lowest, 29·3 ins. and less in a large shallow area lying over Italy and a considerable portion of the Mediterranean, 29·9 ins. and less in a small depression lying over the north-east of France. French disturbance filling up later and barometer rising in most parts of western Europe.

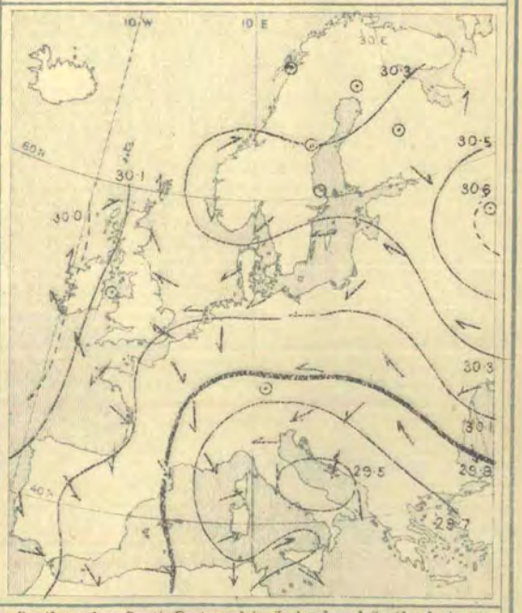
Friday, 10th April.

Temperature and Weather. — 8 a.m.

Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather dull over the greater part of our Islands and the Continent, with rain at some of the German and Austrian stations, as well as at Biarritz, Sanguinaire, Nicolaieff, and Constantinople. Fine in some parts of Scotland and the north of Ireland, as well as over Denmark, the central and northern parts of France and Russia, and the southern parts of the Spanish Peninsula. Some improvement taking place later in the west of France, but rain falling over central Italy.

Temperature highest, 61° at Brindisi, 60° at Malta, 58° at Tunis, and 57° at Nemours and Oran; above 50° at nearly all the Mediterranean stations, and also over the Adriatic. Lowest, 31° at Hernösand, Archangel, Moscow, Kharkov, and Munich, 32° at St. Petersburg, and 33° at Hangö; below 40° in many parts of northern and central Europe, as well as over central Scotland. Daily maxima a little above 50° in many parts of the United Kingdom, the highest reading of all being 56° at Parsonstown. Thermometer exceeding 60° over nearly the whole of southern Europe, and also in Algeria, the highest readings of all being 81° at Sfax and 73° at Brindisi.

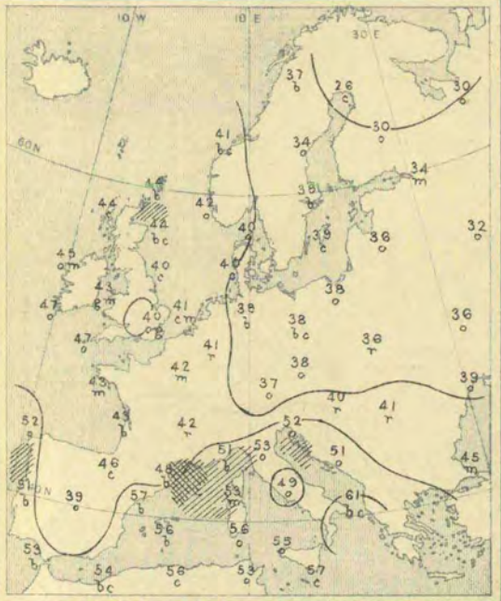
Wind light to moderate from the Southward or South-Eastward in Ireland and Scotland, strong from the South-Westward over the northern parts of Scandinavia. Light from the Eastward or South-Eastward over Russia and the Baltic; moderate from the North-Eastward or Northward over Germany, France, Spain, and the east and south of England. Strong from the Westward over Algeria, light or moderate from the Eastward over Italy and the Adriatic. Subsequently increasing to a strong breeze from the South-Eastward in the south of Ireland; no important change elsewhere.

Barometer highest, 30·4 ins. to 30·6 ins. in an anticyclone lying over Russia, 30·1 ins. and upwards in a "col" extending south-westwards from Scandinavia across the North Sea and greater part of our Islands to the Bay of Biscay and Spain. Lowest, 29·5 ins. and less in a well-marked depression lying between the coasts of Italy and Sardinia. Depression subsequently travelling north-eastwards and becoming deeper; shallow disturbance beginning to approach the south of Ireland, where barometer fell decidedly.

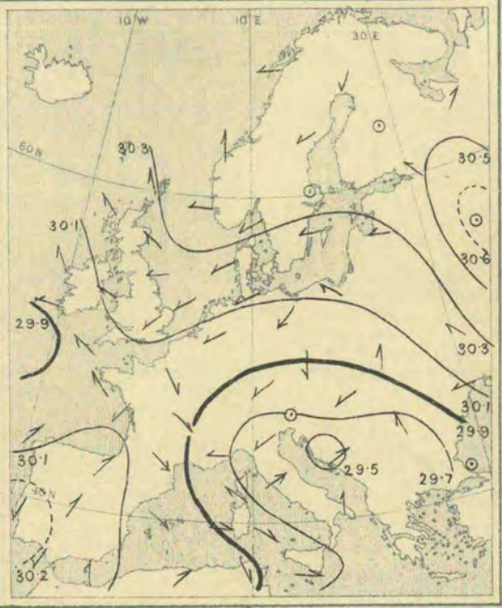
Judd & Co. Lith. 73 & 75, Farringdon Rd. & Doctors' Commons.

Saturday, 11th April.

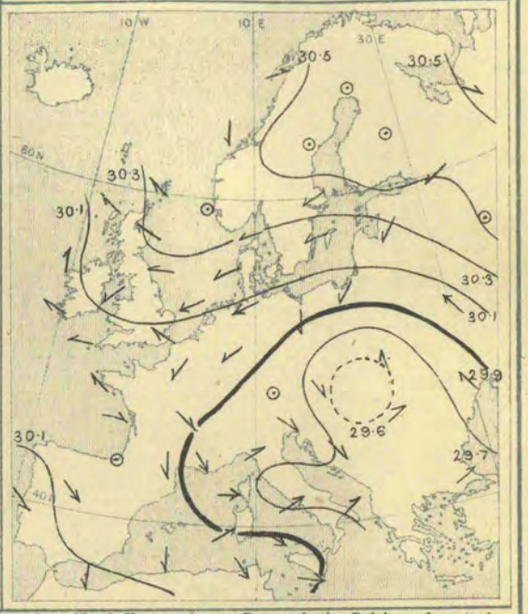
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fine in the north and east of Great Britain, as well as over the west of Norway, the southern parts of France and Spain, and the greater part of Algeria; cloudy or overcast elsewhere, with rain in Austria, central France, and the north of Italy. Rain falling later at many of the French and German stations and passing showers in the south of our Islands.

Temperature highest, 61° at Brindisi, 60° at Tunis, and 57° at Barcelona and Palermo; above 50° at nearly all the Mediterranean stations, and also on the coasts of the Spanish Peninsula. Lowest, 26° at Haparanda, 30° at Archangel and Kuopio, 32° at Hangö, and 34° at Hernösand, St. Petersburg, and Moscow; below 40° in most parts of northern and central Europe, and also over central England. Daily maxima very little above 50° in any part of the United Kingdom, but thermometer exceeding 60° over southern Europe and reaching 70° or more at some of the Algerian stations.

Wind moderate from the Eastward or North-Eastward over Denmark, the Baltic, and central Europe, as well as over a considerable portion of England; light from the Northward in the north of France, but strong from North-West in the south of that country; moderate from the Westward over the central parts of the Mediterranean and from South-West or South over southern Italy. Moderate or fresh from South-East in the west and north of our Islands; variable in Spain and western Algeria. Well-marked cyclonic circulation appearing later over Austria and eastern Germany.

Barometer highest, 30·6 ins. and upwards over central Russia; high, 30·2 ins. and upwards over the whole of northern Europe, and also in another area lying over the south-western parts of the Iberian Peninsula. Lowest, 29·5 ins. and less in a well-marked depression lying over the Adriatic, 29·9 ins. and less in a shallow system lying off the south-west of Ireland. Former disturbance subsequently moving northwards over Austria; latter system travelling away in a southerly direction and apparently dispersing.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During the past week a large anticyclone has extended over northern Europe from central Russia, while depressions of irregular form have existed over the Mediterranean and the extreme southern countries, so that the prevailing winds have been chiefly Easterly. At the commencement of the time a well-marked cyclonic system lay over Ireland, and was occasioning strong South-Easterly gales in Scotland with a very high sea on our north and north-east coasts generally. The depression, however, soon travelled away, firstly in a southerly direction to the mouth of the Channel and afterwards in an easterly direction across the north of France to the Netherlands, where it ultimately dispersed. On the 10th another low-pressure system appeared off our extreme west coasts, but at the close of the week this was moving southwards and filling up. The prevalence of Easterly winds has resulted in a very low temperature for the time of year, the daily maxima being, as a rule, very little above 50° in any part of the United Kingdom.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 80.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	14·6	?	16	?	EASTBOURNE	13·5	?	15	?
OSWALDKIRK	16·2	?	17	?	TORQUAY	21·3*	?	23*	?
WORKSOP	7·0	−20·0	8	−21	ARLEY (County Cavan)	20·0	?	22	?
THURCASTON	5·2	−20·3	6	−21					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

Judd & Co Lith. 73 & 75 Farringdon Rd & Doctors' Commons

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 15], *Third Series.* WEEK ENDING SATURDAY, 18TH APRIL, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 86.)	Observed during the Week.					Above or below the Mean for the Week.	Accumulated.							
				Averages of				For the Week.				From January 4th, 1891.			
		Highest.	Lowest.	Daily Maxima.	Daily Minima.	Daily Mean.		Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	54	28	49·4	34·8	41·8	1 below.	21	+ 5	28	+ 8	168	+40	519	+ 37
	1. SCOTLAND, EAST -	61	23	50·0	32·7	40·9	2 below.	22	− 7	35	+16	171	−20	582	+ 61
	2. ENGLAND, N.E. - -	57	28	48·8	35·3	41·7	2 below.	19	− 7	26	+12	149	−31	546	+ 81
	3. ENGLAND, EAST -	58	28	50·2	34·8	42·1	3 below.	31	− 5	20	+ 5	198	−33	640	+116
	4. MIDLAND COUNTIES	59	25	52·2	33·6	42·5	3 below.	32	− 5	24	+ 8	224	−30	611	+ 99
	5. ENGLAND, SOUTH -	61	29	51·9	36·0	43·6	3 below.	36	− 4	17	+ 7	215	−63	543	+145
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	58	27	51·2	35·2	42·8	2 below.	34	+ 4	19	+ 6	208	+12	410	+ 32
	7. ENGLAND, N.W. -	53	29	49·3	36·3	42·5	3 below.	27	− 4	13	+ 4	206	+ 8	416	+ 24
	8. ENGLAND, S.W. -	66	27	52·9	37·3	44·8	1 below.	39	+ 3	13	+ 5	261	−34	409	+108
	9. IRELAND, NORTH -	59	30	51·6	39·0	45·0	1 below.	34	− 1	8	− 3	274	+ 8	353	+ 14
	10. IRELAND, SOUTH -	59	23	53·5	39·7	46·3	1 below.	40	+ 1	6	− 3	375	+16	285	+ 22
	— CHANNEL ISLANDS -	58	33	51·4	41·8	46·4	2 below.	32	− 8	1	0	330	−30	162	+ 41

Rainfall.

	DISTRICTS. (See p. 86.)	For the Week.			From January 4th, 1891.			
		Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	4	4	3 less.	70	− 3	15·2	+ 0·4
	1. SCOTLAND, EAST -	2	2	3 less.	42	−15	5·5	− 3·1
	2. ENGLAND, N.E. - -	3	2	3 less.	50	− 3	4·7	− 1·8
	3. ENGLAND, EAST -	3	1	3 less.	51	− 1	4·3	− 2·0
	4. MIDLAND COUNTIES	2	1	3 less.	43	− 7	4·7	− 2·7
	5. ENGLAND, SOUTH -	2	1	4 less.	44	− 5	6·0	− 1·8
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	2	2	5 less.	50	−11	9·6	− 5·4
	7. ENGLAND, N.W. - -	2	1	4 less.	40	−17	4·9	− 4·0
	8. ENGLAND, S.W. - -	2	1	5 less.	42	−15	7·1	− 4·5
	9. IRELAND NORTH -	4	4	1 less.	55	−10	6·0	− 3·8
	10. IRELAND, SOUTH -	3	5	1 less.	47	−13	6·2	− 5·6
	— CHANNEL ISLANDS -	2	2	3 less.	47	−16	6·3	− 3·2

Bright Sunshine.

	DISTRICTS. (See p. 86.)	For the Week.				From January 4th, 1891.			
		Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	42	+19	42	+20	280	+ 28	26	+ 2
	1. SCOTLAND, EAST -	47	+28	47	+28	323	+ 29	30	+ 2
	2. ENGLAND, N.E. - -	32	+ 9	33	+ 9	302	+ 45	28	+ 4
	3. ENGLAND, EAST -	31	− 5	33	− 6	333	+ 21	30	+ 1
	4. MIDLAND COUNTIES	33	+ 2	34	+ 2	316	+ 42	29	+ 4
	5. ENGLAND, SOUTH -	36	+ 2	38	+ 1	332	+ 47	30	+ 4
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	40	+ 5	41	+ 4	311	+ 37	29	+ 4
	7. ENGLAND, N.W. - -	35	+ 3	35	+ 1	314	+ 48	29	+ 4
	8. ENGLAND, S.W. - -	52	+14	54	+14	395	+ 61	35	+ 4
	9. IRELAND NORTH -	32	+ 1	33	0	324*	+ 49	30	+ 4
	10. IRELAND, SOUTH -	36	− 2	37	− 3	370	+ 37	34	+ 3
	— CHANNEL ISLANDS -	56	+12	59	+13	494	+ 97	44	+ 8

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been fair, cold, and dry as a whole, but considerable quantities of rain fell over Ireland during the earlier days of the period, and some showers of cold rain and hail were experienced subsequently from time to time on our northern and eastern coasts.

Temperature has continued below the mean, the deficit having varied from 1° to 3°. The highest of the maxima were registered during the latter half of the week, when the thermometer rose to 66° in "England S.W." (at Plymouth), to 61° in "England S." and "Scotland E." and to between 53° and 59° in the other parts of the Kingdom. During the earlier portion of the period the daily maxima at many stations were below 50°. The lowest of the minima, which were recorded between the 12th and 14th, ranged from 23° in "Scotland E." to 30° in "Ireland N." and to 36° in the "Channel Islands."

Rainfall has been less than the mean in all districts; over England the fall has been very slight.

Bright Sunshine shows a considerable increase on that recorded last week, and has been above the mean in nearly all districts. The percentage of the possible duration ranged from 59 in the "Channel Islands" and 54 in "England S.W." to 47 in "Scotland E." and to about 33 over central and eastern England and in the north of Ireland.

Barometer and Wind.—The distribution of pressure over the United Kingdom has been generally anticyclonic and no depressions have appeared immediately over the Kingdom. Soon after the commencement of the period, however, a well-defined but small disturbance moved south-eastwards past the south-west coasts of our Islands, while another shallow system moved northwards off the west of Scotland. These soon dispersed, but later in the week another depression travelled south-eastwards from the Shetland Islands across the North Sea to Germany and caused the showers of rain and hail over the north and east of Great Britain. The wind has, as a rule, been light or moderate in force, and usually from points between North-West and North, or North-East.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 85 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ℌ	50	34	47·1	36·3	41·4	+ 0·3	14	21	2	0·46	−0·03	*	*	*	*
	Stornoway ℌ	49	23	48·0	35·4	41·4	− 1·4	17	25	4	0·15	−0·47	54·7	+23·7	55	+ 19
	Wick ℌ	52	31	49·3	34·4	41·5	− 1·2	20	29	4	0·29	−0·11	*	*	*	*
	Lairg ℌ												*	*	*	*
	Glencarron ℌ	53	28	50·3	33·0	41·2	− 1·5	23	34	5	0·71	−0·29	*	*	*	*
	Fort Augustus ℌ	54	29	51·4	34·0	42·3	− 1·4	36	22	3	0·28	−0·20	27·2	?	27	?
	Fort William ℌ	53	29	50·3	35·7	42·7	− 3·0	31	18	3	0·33	−0·49	42·7	?	43	?
1. SCOTLAND, E.	Nairn ℌ	52	26	50·6	32·1	40·9	− 2·9	24	38	4	0·25	−0·03	*	*	*	*
	Aberdeen ℌ	52	30	48·7	34·4	41·2	− 2·4	19	29	2	0·11	−0·40	61·3	+28·3	62	+28
	Braemar ℌ	48	23	45·5	30·3	37·5	− 3·2	10	41	3	0·39	−0·18	33·8†	? †	34†	?†
	Ochtertyre ℌ	61	27	53·6	32·7	42·7	− 1·1	44	26	2	0·11	−0·14	*	*	*	*
	Leith ℌ	57	28	51·9	33·4	42·2	− 2·5	38	24	1	0·01	−0·37	*	*	*	*
	Marchmont ℌ	54	28	49·6	33·0	40·8	− 1·9	21	33	1	0·02	−0·55	45·5	?	46	?
2. ENGLAND, N.E.	Alnwick Castle ℌ	52	30	46·9	35·3	40·8	− 1·8	14	25	2	0·08	−0·45	*	*	*	*
	Durham ℌ	57	28	50·3	32·3	40·9	− 2·8	23	37	3	0·16	−0·34	37·1	+11·1	38	+11
	Shields ℌ	56	31	49·3	35·4	42·0	− 1·6	20	18	1	0·02	−0·40	*	*	*	*
	Scarborough ℌ	54	36	47·7	37·3	42·3	− 2·1	22	13	4	0·38	−0·09	*	*	*	*
	York ℌ	57	28	51·7	33·4	42·1	− 3·1	37	24	4	0·21	−0·21	26·4	− 3·6	27	− 4
	Spurn Head ℌ	50	36	46·6	38·3	42·3	− 1·8	18	10	2	0·12	−0·21	*	*	*	*
3. ENGLAND, E.	Hillington ℌ	56	31	51·2	34·7	42·6	− 3·0	35	20	3	0·07	−0·35	36·5	+ 2·5	38	+ 3
	Yarmouth ℌ	52	35	45·9	37·3	41·4	− 2·4	11	18	5	0·19	−0·21	*	*	*	*
	Geldeston ℌ	55	33	49·3	35·8	42·2	− 3·0	27	17	4	0·22	−0·13	26·1	−11·9	27	−13
	Cambridge ℌ	58	28	53·6	32·4	42·5	− 3·6	44	27	2	0·13	−0·26	26·8	− 8·2	28	− 8
	Rothamsted ℌ	56	29	51·1	33·6	41·9	− 3·1	25	33	3	0·19	−0·41	35·5	?	37	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall) ℌ	55	27	52·4	31·3	41·4	− 4·2	29	42	2	0·05	−0·33	*	*	*	*
	Loughborough ℌ	56	29	53·1	34·3	43·3	− 2·9	41	22	2	0·15	−0·26	*	*	*	*
	Stamford (Ketton Hall) ℌ	55	25	52·6	31·7	41·7	− 4·6	30	40	3	0·12	?	*	*	*	*
	Cheadle ℌ	52	32	49·8	35·1	42·1	− 2·0	30	19	3	0·10	−0·40	*	*	*	*
	Churchstoke ℌ	56	27	51·5	32·6	41·6	− 2·2	27	36	3	0·07	−0·35	30·4	− 1·7	31	− 2
	Hereford ℌ	59	30	53·9	35·0	44·0	− 1·8	43	20	2	0·17	−0·25	*	*	*	*
	Cirencester ℌ	56	30	51·6	33·7	42·2	− 2·5	36	23	2	0·03	−0·47	33·5	+ 0·5	35	0
	Oxford ℌ	58	31	53·0	34·9	43·5	− 2·4	40	20	1	0·08	−0·34	33·7	+ 0·7	35	+ 1
5. ENGLAND, S.	London ℌ	56	30	52·6	36·0	43·9	− 2·7	39	17	2	0·11	−0·32	27·7 †	− 2·3†	29†	0†
	Strathfield Turgiss ℌ	59	29	54·5	33·1	43·3	− 3·2	46	25	0	—	−0·42	*	*	*	*
	Dungeness ℌ	53	29	44·7	33·6	40·8	− 5·0	19	32	1	0·05	−0·36	*	*	*	*
	Hastings (St. Leonards) ℌ	53	33	49·8	37·3	43·3	− 3·8	29	13	1	0·01	−0·47	35·5	− 3·9	37	− 4
	Southampton ℌ	61	35	54·4	37·3	45·4	− 2·1	44	13	2	0·08	−0·42	40·6	+ 2·6	42	+ 2
	Hurst Castle ℌ	56	36	50·9	38·6	44·5	− 2·0	32	10	4	0·07	−0·36	*	*	*	*
	Stowell ℌ	56	33	52·2	36·0	43·7	− 2·0	37	17	1	0·01	?	38·7 †	?†	40†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart) ℌ	58	31	51·4	36·0	43·3	− 1·8	34	17	2	0·35	−0·62	*	*	*	*
	Glasgow ℌ	54	34	50·5	36·5	43·2	− 1·3	32	15	2	0·09	−0·43	36·7	+ 3·7	37	+ 7
	Ardrossan ℌ	57	30	51·6	35·3	43·1	− 2·1	36	19	1	0·13	−0·37	*	*	*	*
	Glenlee ℌ	57	27	52·4	31·0	41·2	− 2·3	29	42	1	0·11	−0·57	*	*	*	*
	Douglas (Isle of Man) ℌ	54	33	49·9	37·0	43·1	− 1·0	29	14	2	0·15	−0·40	42·6	+ 0·6	44	+ 1
7. ENGLAND, N.W.	Newton Reigny ℌ	53	29	50·9	31·9	40·9	− 2·4	25	38	3	0·08	−0·36	43·4	+10·4	45	+11
	Stonyhurst ℌ	51	30	48·5	34·7	41·3	− 3·5	18	28	1	0·03	−0·49	34·6	+ 2·6	36	+ 3
	Blackpool ℌ	52	33	47·9	36·9	42·1	− 1·9	22	14	0	—	−0·40	20·4	−13·6	21	−13
	Manchester ℌ	53	32	49·5	34·9	41·9	− 2·9	21	28	2	0·05	−0·43	*	*	*	*
	Liverpool Obsy. (Bidston) ℌ	50	34	48·7	37·4	42·8	− 3·3	25	13	1	0·04	−0·34	*	*	*	*
	Llandudno ℌ	52	34	49·0	37·8	43·1	− 3·7	25	12	2	0·13	−0·29	35·7	+ 3·7	37	+ 4
	Holyhead ℌ	53	38	50·4	40·7	45·3	− 1·4	29	4	4	0·10	−0·35	*	*	*	*
8. ENGLAND, S.W.	Llandovery ℌ	62	27	55·4	32·3	43·5	− 1·3	51	27	3	0·16	−0·51	*	*	*	*
	Pembroke ℌ	52	38	49·6	40·7	44·9	− 0·9	26	4	1	0·01	−0·44	56·2	+13·2	59	+15
	Arlington (N. Devon) ℌ	59	29	52·3	35·1	43·3	− 1·3	38	19	2	0·11	−0·57	*	*	*	*
	Cullompton ℌ	59	30	53·5	35·2	43·9	− 1·9	42	19	1	0·10	−0·50	45·3	+11·3	47	+12
	Falmouth ℌ	54	38	50·6	40·6	45·4	− 1·9	30	4	2	0·32	−0·39	54·8	+14·6	58	+16
	Plymouth ℌ	66	36	57·4	39·0	47·8	− 0·4	53	8	1	0·08	−0·48	55·3	+15·9	58	+17
	Prawle Point ℌ	56	35	51·6	38·4	44·7	− 1·2	34	10	3	0·09	−0·39	*	*	*	*
9. IRELAND, N.	Malin Head ℌ	51	37	48·7	40·7	44·5	− 1·3	23	4	4	0·08	?	*	*	*	*
	Londonderry ℌ	59	34	52·8	37·7	44·9	− 1·8	38	12	4	0·36	−0·16	*	*	*	*
	Mullaghmore ℌ	53	38	50·6	41·9	46·0	− 0·8	25	0	3	0·35	−0·14	*	*	*	*
	Belmullet ℌ	52	36	51·6	42·6	46·9	− 0·9	34	0	4	0·61	?	*	*	*	*
	Markree Castle ℌ	57	30	53·0	38·6	45·5	− 0·1	39	10	4	0·54	−0·04	35·4	+ 2·4	36	0
	Brookeborough ℌ	56	31	51·6	34·6	42·7	− 1·7	36	21	5	0·52	−0·08	*	*	*	*
	Armagh ℌ	55	32	51·9	36·2	43·7	− 1·0	36	16	4	0·09	−0·41	31·7	− 1·3	33	0
	Donaghadee ℌ	56	38	51·0	41·6	46·1	+ 0·9	30	1	4	0·27	−0·18	*	*	*	*
	Edgeworthstown ℌ	57	30	53·6	36·7	44·7	+ 0·1	41	15	5	0·71	+0·16	*	*	*	*
10. IRELAND, S.	Dublin ℌ	56	37	53·2	40·6	46·6	− 0·2	38	4	3	0·24	−0·22	37·3	− 0·5	38	− 1
	Parsonstown ℌ	58	30	54·1	37·3	45·3	− 0·3	43	13	3	0·37	−0·11	24·0	−13·0	25	−14
	Kilkenny ℌ	57	28	53·6	36·4	44·6	− 0·9	42	16	3	0·67	+0·17	*	*	*	*
	Waterford ℌ	57	34	53·3	38·3	45·4	− 1·8	39	10	2	0·48	−0·12	*	*	*	*
	Roche's Point ℌ	54	40	51·9	41·4	46·4	− 1·4	33	2	2	0·52	−0·24	*	*	*	*
	Valencia ℌ	55	37	53·1	42·6	47·6	− 0·4	39	0	3	0·90	+0·01	45·1	+ 5·1	47	+ 6
	Killarney ℌ	59	32	55·0	38·2	46·2	− 1·2	45	11	3	0·54	?	*	*	*	*
	Foynes ℌ	58	37	53·9	42·4	47·9	+ 1·3	41	0	2	0·58	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's) ℌ	54	41	50·7	43·9	47·1	− 1·0	36	0	2	0·32	−0·22	*	*	*	*
	Jersey ℌ	58	36	52·1	39·7	45·6	− 3·1	35	6	1	0·02	−0·46	55·8	+11·8	59	+13

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked ℑ with the Scottish Meteorological Society.

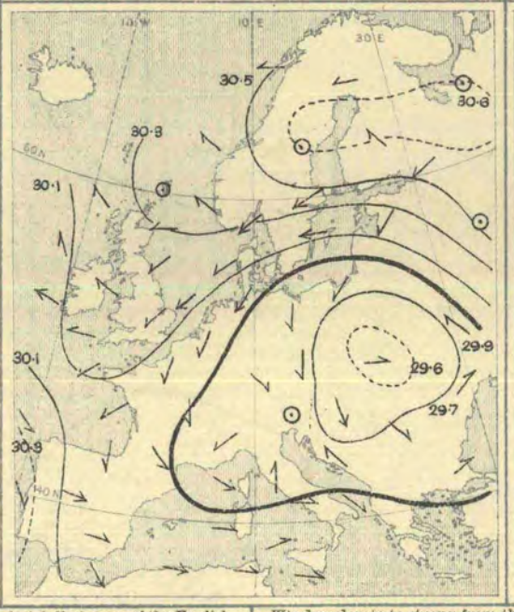
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

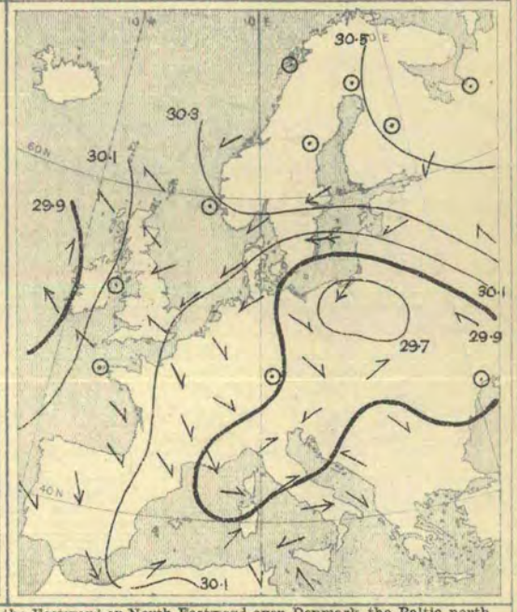
Sunday, 12th April.

Temperature and Weather. 8 a.m.

Barometer and Wind. 8 a.m.



Barometer and Wind. 8 p.m.



Weather fine over the greater part of western and northern Europe, but dull at some of the English stations. Dull in nearly all the central and southern countries, rainy in Germany, and also at Kiev, Trieste, Biarritz, and Rome; snow falling at Warsaw. Showers of hail, sleet, or rain during day in the south of England, in Germany, and the north of France, and large quantities of rain in the west and south of Ireland (0·8 in. at Valencia Island and 0·5 in. at Belmullet and Roche's Point). Rain at many of the Mediterranean stations also.

Temperature highest, 61° at Oran, 60° at Algiers, 59° at Brindisi, and 58° at Corunna and La Calle; above 50° at nearly all the Mediterranean stations and also on the coast of the Spanish Peninsula. Lowest, 23° at Haparanda, 26° at Archangel, 30° at Ulcaborg and Hernösand, and 31° at St. Petersburg; below 40° over northern and central Europe generally and only just reaching that point in London. Daily maxima below 50° at most of the English stations, but exceeding 60° over Italy, Spain, and Algeria, and nearly touching 80° at Sfax.

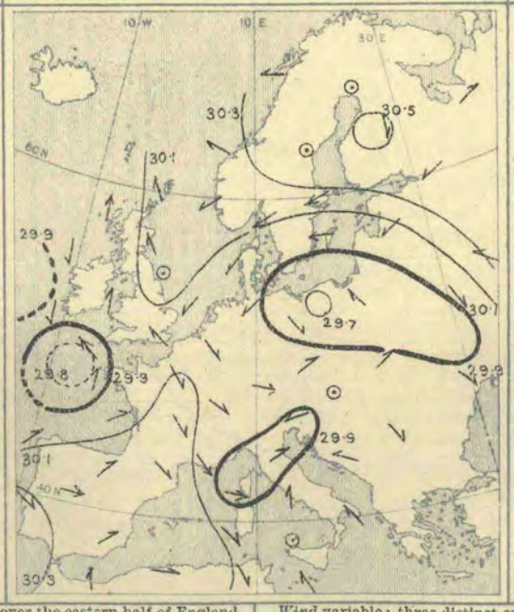
Wind moderate to strong from the Eastward or North-Eastward over Denmark, the Baltic, north Germany, the Netherlands, France, and the east and south of England; moderate from the South-Eastward in the west and north of our Islands, North-Westerly over Austria and the central and southern parts of Germany, as well as in Spain and the extreme south of France; Westerly in Algeria and the south of Italy, variable in the north of Italy. Subsequently increasing to a strong breeze or moderate gale from the South-Eastward in Ireland and blowing a gale from North-East over the Baltic.

Barometer highest, 30·6 ins. and more to 30·2 ins. in an anticyclone lying over the northern parts of Russia, Scandinavia, the Orkneys, and the northern half of Great Britain; 30·3 ins. to 30·2 ins. over the western part of the Spanish Peninsula; and exceeding 30·0 ins. in a "col" uniting the two systems and lying over the Bay of Biscay. Lowest, 29·6 ins. and less in a well-defined depression lying over Galicia. New disturbance subsequently advancing to our extreme western coasts and barometer falling decidedly in Ireland; the system subsequently breaking into two parts.

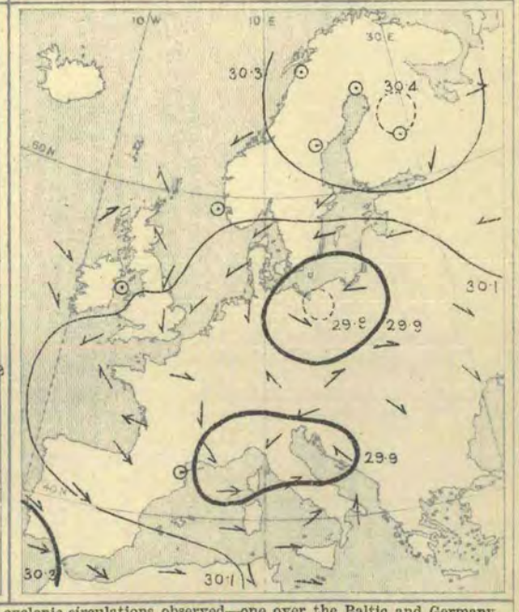
Monday, 13th April.

Temperature and Weather. 8 a.m.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright over northern Europe and Scotland, fair over the eastern half of England and in some parts of France; cloudy or overcast elsewhere, unsettled and showery on our south-western and north-western coasts. Showers during the day over Ireland, the mouth of the Channel, and Brittany, and a considerable fall of rain in the north of Spain, the south-west of France, Italy, and at Trieste; rain over the Baltic and north Germany also.

Temperature continuing low generally for time of year all over north-western, western, and southern Europe, with a tendency to fall over the British Isles. Morning readings below 60° everywhere; exceeding 50° at a number of the Mediterranean and Spanish stations only, and exceeding 40° in the western and southern parts of our Islands, on the French coasts, and in southern Russia; lower elsewhere. Lowest, 22° at Haparanda, 24° at Archangel, 27° at Kuopio, 31° at Hernösand, 34° at Le Mans, and 38° at York, Paris, and Brussels. Touching 50° at a few British stations later and rising to 59° in the south of France and at Lisbon, to between 60° and 70° over Italy, and to 70° and more over Algeria. Succeeding night very cold over British Isles.

Wind variable; three distinct cyclonic circulations observed—one over the Baltic and Germany, another over the northern parts of the Mediterranean, the south-east of France, and northern Italy, and a third over the south-western and southern parts of the British Isles, Brittany, the Bay of Biscay, and Spain. Strong in the south of Sweden and at Scilly, moderate elsewhere. Variable airs reported over central and southern Russia. Variable airs becoming prevalent over the British Isles later, but a moderate Easterly gale over the eastern part of the Gulf of Finland.

Barometer highest, (1) 30·4 ins. and more to 30·1 ins. in an anticyclone over northern Europe and a "col" extending thence to the north-eastern parts of Great Britain; (2) 30·3 ins. and more to 30·1 ins. in another system over Spain and the south-west of France; (3) apparently exceeding 30·0 ins. over the Balkan Peninsula. Lowest, about 29·7 ins. in a depression over north Germany, 29·8 ins. and less in another off the mouth of the English Channel, and 29·9 ins. and less over the Gulf of Genoa and Corsica. Depression near Scilly moving south-eastwards later, and barometer rising decidedly over Ireland; other disturbances filling up.

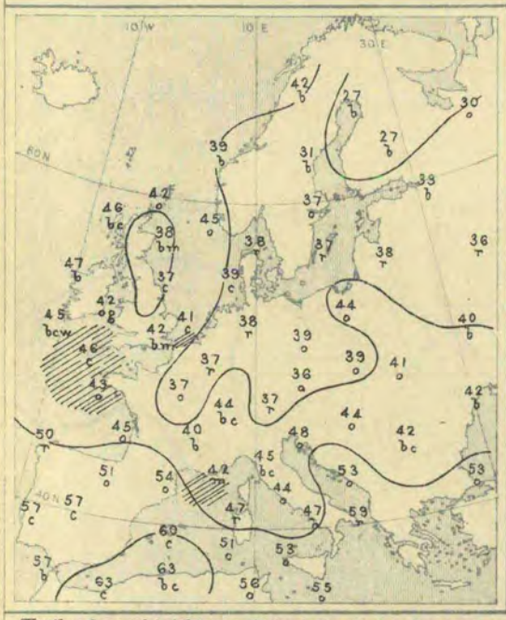
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 14th April.

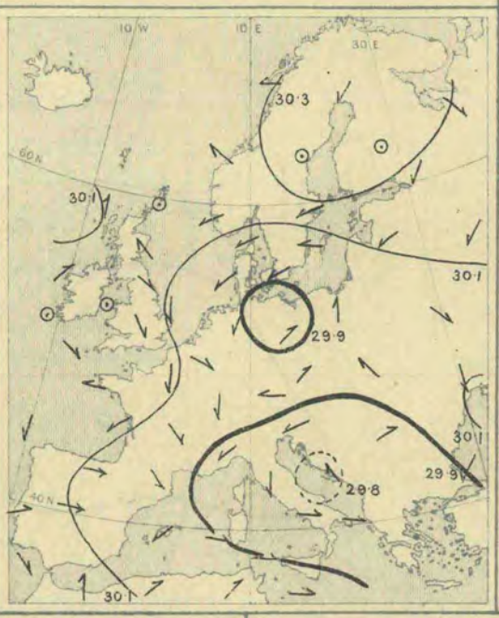
Temperature and Weather.

8 a.m.

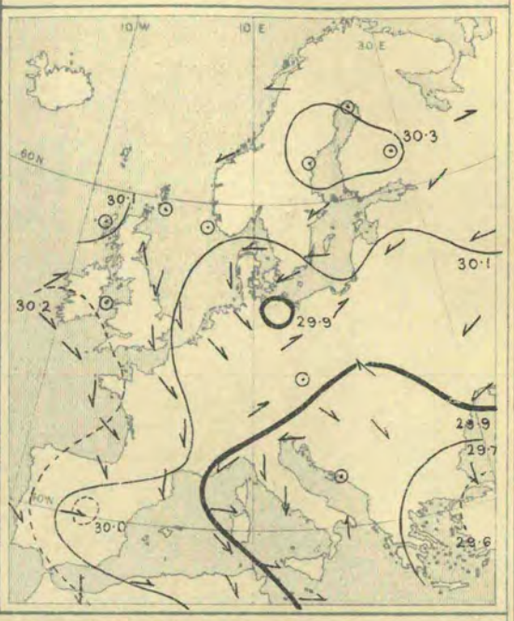


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine and bright over Finland, Scandinavia, Scotland, and Ireland; fair, as a whole, over England and the west of France; overcast and unsettled elsewhere, with rain over many parts of central Russia, the Baltic Provinces, the Netherlands, English Channel, south Germany, the Mediterranean, and Spain. Rain later over central Europe and the Netherlands, slight showers on our extreme north and north-west coasts, hail at Prawle Point. A heavy fall reported at Constantinople.

Temperature changing little and irregularly. Morning readings exceeding 50° on the western, southern, and eastern shores of the Mediterranean, and over the Iberian Peninsula (exceeding 60° at Algiers and Oran), and exceeding 40° over the south and west of France, the greater part of our Islands, north Germany, and Norway. Lowest, 27° to 33° over Finland and the northern parts of Russia and Sweden, 36° at Moscow, 37° at Shields and Brussels, 38° at Loughborough, Breslau, and Warsaw. Rising to 50° or a little higher at many of our own stations later, to 57° in the west and south-west of France, to between 65° and 70° in many parts of Spain and Italy, and to upwards of 70° over Algeria.

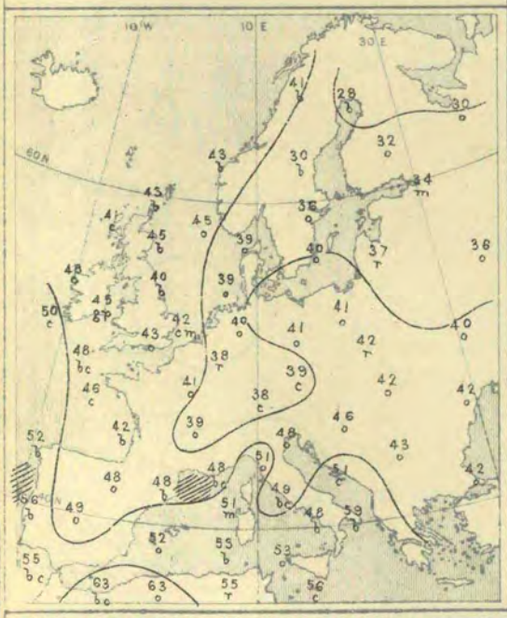
Wind light from between North and East over the whole of northern Europe, the Baltic, and the eastern and southern sides of the North Sea, as well as over France, the Bay of Biscay, and Spain; North-Westerly over the Gulf of Lyons, Westerly to South-Westerly over Algeria. Very variable elsewhere, but mainly South-Westerly on the extreme north and north-west coasts of the British Islands. Cyclonic circulation of light winds over Italy. No important change later, except an increase in force of wind at the Italian stations.

Barometer highest, 30·3 ins. and more to 30·2 ins. over Scandinavia, and also over the Spanish Peninsula, the Bay of Biscay, and south-western parts of Ireland; exceeding 30·1 ins. in a "col" uniting these areas and lying over our Islands. Lowest, 29·8 ins. and less in a depression over the Adriatic, 29·9 ins. and less in another over north-west Germany and Holstein; rather low over the whole of central and south-eastern Europe. No important change over north-western Europe later, but new (large) depression beginning to approach the Black Sea from Asia Minor.

Wednesday, 15th April.

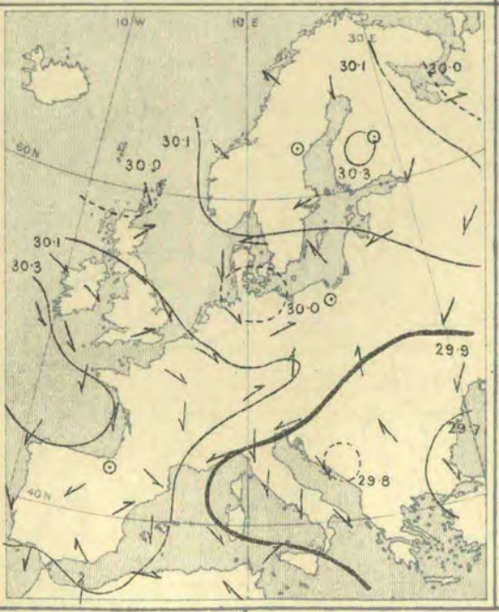
Temperature and Weather.

8 a.m.



Barometer and Wind.

8 a.m.



6 p.m.

Weather in morning fine and bright over the northern parts of Scandinavia, as well as the south-west of our Islands, the Bay of Biscay, and south of Italy; cloudy or overcast elsewhere, with rain in several places, and a somewhat unsettled condition in all regions. Rain and hail showers at our northern stations later, and showers in many other localities, including the north of Italy, the largest amounts being between 0·18 in. and 0·24 in. in the north and 0·24 in. at Biarritz and Rome. Lunar halos seen at many British stations in evening.

Temperature risen somewhat over northern Europe, the British Islands, and Italy; fallen over south-western Europe. Morning readings, 63° at Algiers and Oran, and exceeding 50° on the eastern, southern, and western shores of the Mediterranean, and on the Atlantic coasts of Spain and Portugal; ranging between 40° and 50° over the British Islands and greater part of France, and exceeding 40° over north Germany. Lowest, 28° to 34° over northern Europe, 34° to 37° over central Russia, and below 40° over Denmark. Rising to between 50° and 58° over the British Islands and the west of France later, 60° and more in the south of France, to 68° at Lisbon, 72° at Brindisi, and to between 65° and 75° over Algeria.

Wind very variable; light North-Westerly over Ireland, England, and France, Westerly over north Germany, South-Easterly to Easterly over the Baltic and south of Scandinavia, Southerly in the east of Scotland, South-Easterly in the north of Norway. Fresh Northerly breezes over the northern and eastern parts of the Mediterranean, also over southern Russia; moderate Westerly at Malta. Becoming Westerly in Scotland and north of Ireland later, but remaining moderate in strength; Easterly airs continuing over northern Europe.

Barometer highest, (1) 30·3 ins. and more to 30·2 ins. in a large anticyclone spreading in from the Atlantic over the Bay of Biscay, west of France, and south-west of our Islands; (2) 30·3 ins. to 30·2 ins. in another lying over northern Europe; exceeding 30·1 ins. in the "col" uniting the two and lying over England and south of Norway. Lowest, 29·7 ins. and less in a depression over Black Sea, 29·8 ins. and less in a secondary over Croatia, and in another over Corsica and Gulf of Genoa, 30·0 ins. and less in a third over Holstein and Zealand. Latter system almost filling up later, but a new one advancing towards the Shetlands and north of Scotland from north-westward.

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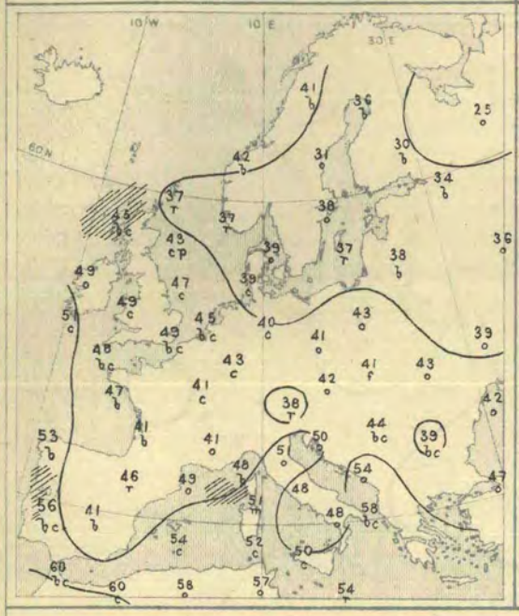
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 16th April.

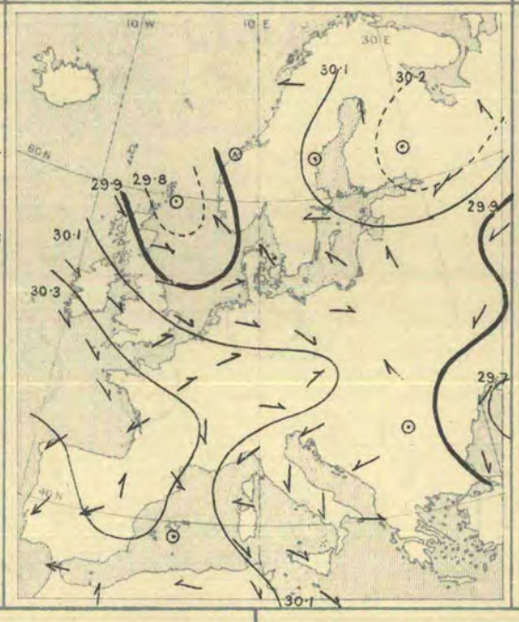
Temperature and Weather. 8 a.m.

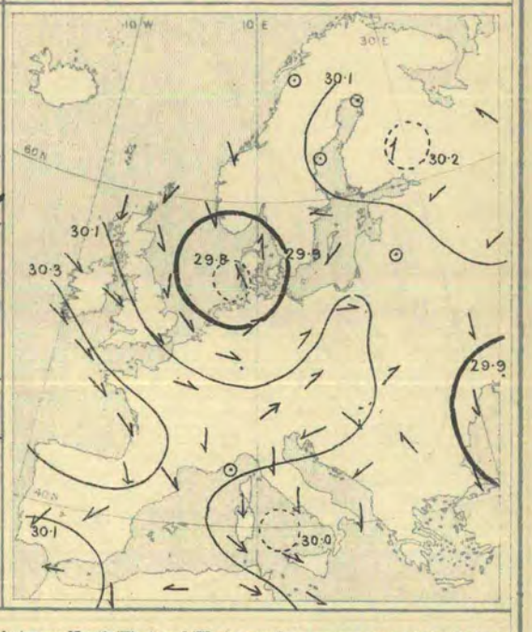


Weather in morning fine and bright over northern and many parts of western and south-western Europe, cloudy and unsettled elsewhere, especially over the North Sea and Baltic, southern Russia, and the eastern parts of the Mediterranean; rain in several places. Rain falling later over Germany and the Baltic and in several parts of southern Europe, rain and hail over the north and east of our Islands, the North Sea, Netherlands, and the north-east of France, snow over central Russia and at Kharkov.

Temperature risen over the British Islands, fallen over the west of France, central Spain, and Algeria. Varying between 50° and 60° in morning on the southern and western shores of the Mediterranean, the Atlantic coasts of Portugal and Spain, and at Valencia Island; lower elsewhere. Below 40° at most of the Scandinavian and Baltic stations, and as low as 25° at Archangel, 30° at Kuopio, 31° at Hernösand, 34° at Helsingfors and St. Petersburg. Rising to between 50° and 57° over England and Ireland later, to 60° at Brest, to between 60° and 70° over Italy, and to 73° at Lisbon. Falling fast again over western Europe towards night.

Barometer and Wind. 8 a.m. and 6 p.m.



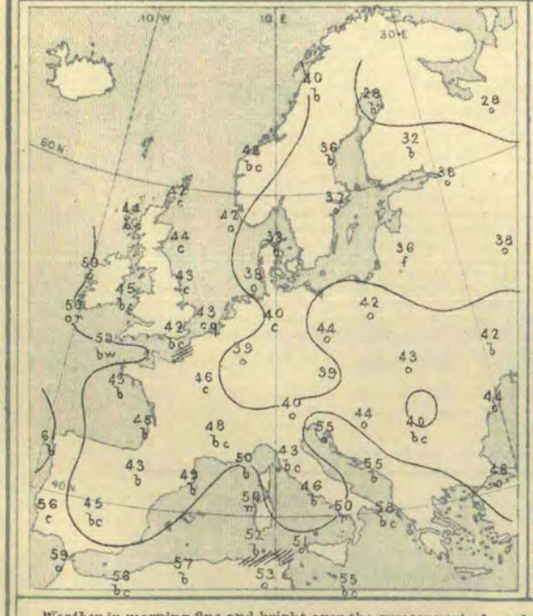


Wind moderate to fresh from between North-West and West over the greater part of the British Isles, light Westerly over north Germany, but South-Easterly to Easterly, and very light, over the Baltic, Sweden, and Norway. Mainly Northerly to Easterly at stations in the south of Europe, North-Westerly in Sardinia, Tunis, Sicily, and Malta. Veering Northwards over the United Kingdom during the day and freshening at the North Sea stations.

Barometer highest, 30·3 ins. and more to 30·2 ins. in a large anticyclone covering the Bay of Biscay, Spain, France, and the south-western half of our Islands, and 30·2 ins. to 30·0 ins. in another system lying over northern Europe. Lowest, 29·7 ins. and less in a depression lying over the Crimea and southern Russia, 29·8 ins. and less in another near the Shetland Islands, and 29·9 ins. and less in shallow secondary systems over the eastern parts of the Mediterranean. The disturbance near the Shetlands moving south-eastwards later and barometer rising fast in Scotland.

Friday, 17th April.

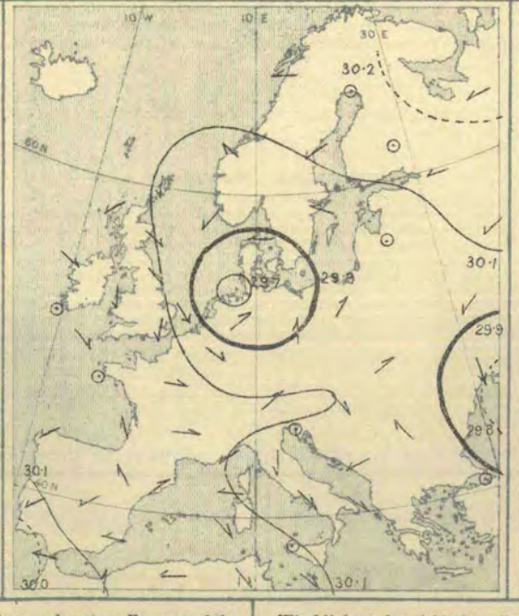
Temperature and Weather. 8 a.m.

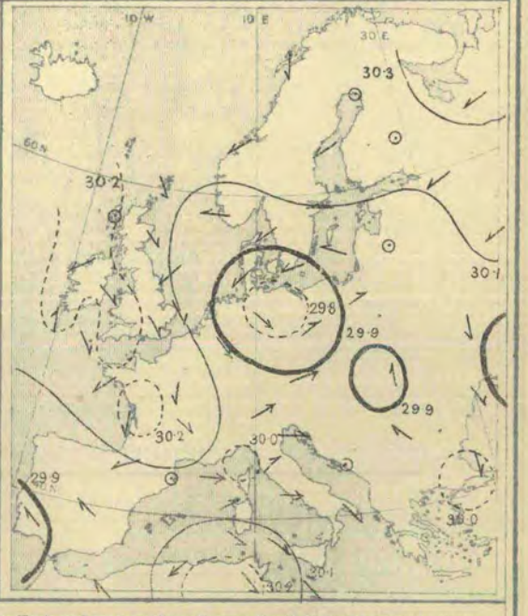


Weather in morning fine and bright over the greater part of northern and western Europe and the British Islands; dull, unsettled, and showery over the North Sea, the Netherlands, and north-western Germany, as well as over southern Russia and the Black Sea. Rain and hail at times during day over Germany, the Netherlands, and several of our own northern and eastern stations, and locally at Kharkov later. Night clear and very cold over Great Britain.

Temperature changing irregularly, but tending to decrease over western Europe and to increase in the south-east. Morning readings exceeding 50° on the coasts of southern and south-western Europe (61° at Corunna, 67° at Oporto), touching 50° at Belmullet, Valencia, Scilly, and Jersey, but below 40° at most stations lying to the eastward of the North Sea; 28° at Archangel and Haparanda, 30° at Helsingfors, 36° at Hernösand and Riga, 38° at the Scaw and Fanö. Rising to between 50° and 56° over the British Islands, the north and east of France, and some parts of Germany later, to 60° and more in the south-west and south of France and in Italy, to 70° and more over the Spanish Peninsula, and to between 70° and 84° over the eastern half of Algeria.

Barometer and Wind. 8 a.m. and 6 p.m.





Wind light and variable from the Eastward over northern Europe, South-Easterly over the Baltic; very light and variable from the North-Westward over Scotland and Ireland, light to fresh from same direction over England and Holland, Westerly in the east of France, Southerly in north Germany. Moderate to fresh from the Eastward over Spain and Portugal, but North-Easterly to North-Westerly over the eastern parts of the Mediterranean. Extremely variable and light in Ireland later, and becoming Northerly over Denmark, Westerly over south Germany, Austria, and Italy.

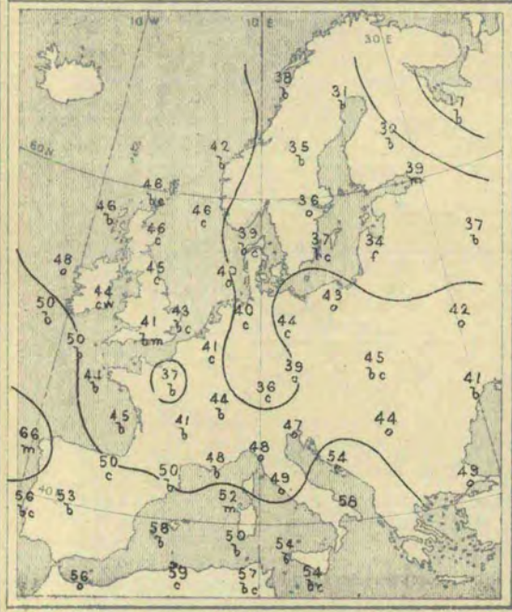
Barometer highest, (1) 30·2 ins. and more in a broad band stretching from the Atlantic across the western parts of the United Kingdom, France, and the north-east of Spain to Algeria; (2) 30·2 ins. to 30·1 ins. over the northern parts of Scandinavia and Russia. Lowest, 29·8 ins. and less in a depression over the Crimea and southern Russia, and in another depression lying over the south-eastern part of the North Sea; apparently below 30·0 ins. off the south-west coasts of Spain, and below 30·1 ins. over Corsica and Italy. Falling slowly over south-western Europe later, rising in the north, and depression over the North Sea moving south-eastwards slowly.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons

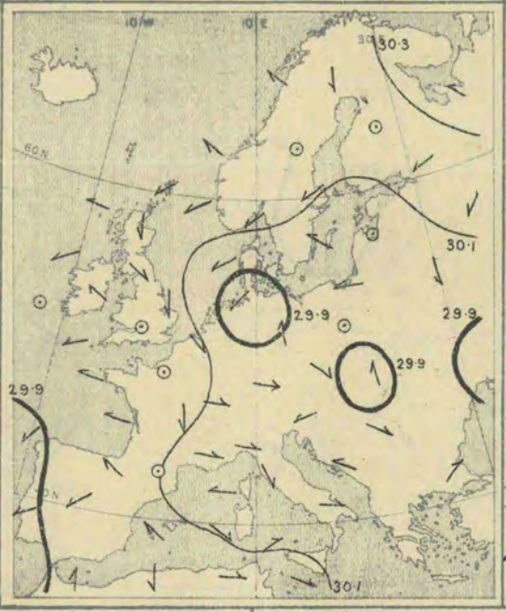
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 18th April.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

Weather in morning fine and bright over northern Europe, the western part of the British Islands, as well as at many stations over France and on the shores of the Mediterranean; dull and unsettled over eastern, south-eastern, and central Europe, with rain in places, as well as on the eastern shores of the North Sea. Rain later over several parts of Germany, Austria, and southern Russia, and also in some parts of Italy and Spain; a slight fall over our north-midland counties at night.

Temperature in morning exceeding 60° at Corunna only; exceeding 50° over the western and southern parts of the Mediterranean, and touching that value at Valencia Island and Scilly. Lower elsewhere, and as low as 17° at Archangel, 30° at Kuopio, 34° at Riga, 35° at Hernösand, 36° at Stockholm and Munich. Rising later to between 79° and 83° over the north of Spain, 77° at Cape Bearn, and to nearly 70° over Italy and Algeria; not touching 60° in any part of our Islands, and failing to reach 50° at Shields, Malin Head, Stornoway, and Aberdeen.

Wind nearly calm over extreme north of Europe and the Shetland Islands, Northerly to Easterly over the Baltic, Ireland, the west of the Bay of Biscay, and Spain, Northerly over the North Sea, North-Westerly over western Germany, Westerly over Austria and south Germany. Very variable elsewhere. Shifting to South and South-West over the south of Spain later and veering to North-West over Austria and North in western Germany; becoming quite calm over northern Europe.

Barometer highest, 30·2 ins. and more to 30·1 ins. over the northern parts of Europe, the British Islands, and greater part of France. Lowest, 29·9 ins. and less in several depressions over Germany, Hungary, and southern Russia, as well as over Portugal and neighbouring parts of the Atlantic. Rising over northern Europe during day, changing very little elsewhere. Shallow hollow forming over Spain and moving northwards.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During this week the barometer has been almost continuously high over northern, low over south-eastern and central Europe; the former regions have been marked by fine quiet weather, the latter by frequent falls of snow, hail, or cold rain, and these occasionally spread to France and the south-east of England. On Sunday night (12th) a depression reached our south-western coasts from the Atlantic, causing South-Easterly winds and a considerable fall of rain in Ireland; as it moved south-eastwards the rain spread to the Bay of Biscay and Spain, but in Ireland the sky cleared. In its rear the barometer rose quickly and a high-pressure system appeared over the Atlantic, off the Irish coast. On Wednesday (while the weather over central Europe was improving temporarily) a new depression reached the Shetland Islands, and, moving south-eastwards, soon caused a renewal of the unsettled weather over Germany, the Netherlands, and Denmark, while passing showers of hail and rain fell over the northern and eastern parts of the United Kingdom and were only just ceasing when the week closed. The western and northern anticyclones then coalesced over northern Europe, and extended south-westwards in a "ridge"-like form over our Islands, and the disturbances over central Europe began to fill up; a new low-pressure system, however, of complex form then showed itself in the extreme south-west, spreading eastwards from the Atlantic over the Iberian Peninsula, and at the close of the week this seemed inclined to move north-wards very slowly. Temperature forthwith rose over Spain and rain fell, but dry North-Easterly winds continued in the west and north-west, with cold days and frosty nights in most places.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 86.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	45·2	?	46	?	EASTBOURNE	38·2	?	40	?
OSWALDKIRK	33·5	?	35	?	TORQUAY	47·4 *	?	50 *	?
WORKSOP	30·4	+1·4	31	+ 1	ARLEY (County Cavan)	28·4	?	29	?
THURCASTON	35·6	+8·6	37	+ 9					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

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VOL. VIII. No. 16]. *Third Series.* WEEK ENDING SATURDAY, 25TH APRIL, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 92.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	55	27	49·9	33·8	41·5	3 below.	22	− 3	32	+16	189*	+38	553*	+ 55
	1. SCOTLAND, EAST -	59	25	49·7	34·5	41·7	3 below.	22	−12	29	+15	193	−28	611	+ 77
	2. ENGLAND, N.E. - -	55	28	47·6	36·8	41·9	3 below.	16	−15	20	+12	165	−42	566	+ 91
	3. ENGLAND, EAST -	59	28	49·6	35·3	42·1	5 below.	29	−13	19	+ 8	227	−41	659	+125
	4. MIDLAND COUNTIES	58	25	50·4	34·8	42·2	5 below.	32	−11	20	+ 9	256	−36	631	+107
	5. ENGLAND, SOUTH -	60	28	52·8	37·4	44·8	3 below.	39	− 8	13	+ 7	254	−64	556	+151
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	60	26	51·5	35·4	43·1	3 below.	35	− 1	18	+ 8	243	+15	428	+ 33
	7. ENGLAND, N.W. -	55	24	49·5	35·4	42·1	5 below.	28	−10	18	+10	234	+ 5	434	+ 35
	8. ENGLAND, S.W. -	60	29	51·3	39·5	44·6	3 below.	33	− 9	10	+ 5	294	−38	419	+112
	9. IRELAND, NORTH -	60	27	51·7	36·4	43·7	3 below.	35	− 5	16	+ 8	309	+ 8	369	+ 23
	10. IRELAND, SOUTH -	59	31	52·8	38·7	45·4	3 below.	33	− 7	9	+ 3	413	+14	294	+ 26
	— CHANNEL ISLANDS -	61	41	52·3	44·0	48·0	2 below.	42	− 5	0	− 1	372	−29	162	+ 41

Rainfall.

	DISTRICTS. (See p. 92.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	2	1	5 less.	72	− 5	15·3	− 0·1
	1. SCOTLAND, EAST -	1	1	4 less.	43	−18	5·6	− 3·5
	2. ENGLAND, N.E. - -	3	1	3 less.	53	− 4	4·8	− 2·1
	3. ENGLAND, EAST -	1	less than ½.	4 less.	52	− 4	4·3	− 2·4
	4. MIDLAND COUNTIES-	1	1	3 less.	44	−10	4·8	− 3·0
	5. ENGLAND, SOUTH -	0	—	5 less.	44	− 9	6·0	− 2·0
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	1	less than ½.	6 less.	51	−14	9·6	− 6·0
	7. ENGLAND, N.W. - -	1	less than ½.	4 less.	41	−19	4·9	− 4·5
	8. ENGLAND, S.W. - -	1	1	4 less.	43	−18	7·2	− 4·9
	9. IRELAND, NORTH -	0	—	5 less.	55	−13	6·0	− 4·3
	10. IRELAND, SOUTH -	1	less than ½.	6 less.	48	−15	6·2	− 6·2
	— CHANNEL ISLANDS -	2	2	3 less.	49	−18	6·5	− 3·5

Bright Sunshine.

	DISTRICTS. (See p. 92.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	50	+28	49	+28	330	+ 47	28	+ 3
	1. SCOTLAND, EAST -	40	+ 6	39	+ 7	363	+ 42	31	+ 3
	2. ENGLAND, N.E. - -	29	− 4	29	− 2	331	+ 52	28	+ 4
	3. ENGLAND, EAST -	34	− 5	35	− 5	367	+ 25	30	+ 1
	4. MIDLAND COUNTIES-	27	− 7	27	− 6	343	+ 43	28	+ 3
	5. ENGLAND, SOUTH -	43	+ 8	43	+ 7	375	+ 59	31	+ 4
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	56	+18	56	+17	367	+ 64	31	+ 5
	7. ENGLAND, N.W. - -	33	− 2	33	− 3	347	+ 54	29	+ 4
	8. ENGLAND, S.W. - -	40	− 3	40	− 2	435	+ 66	36	+ 5
	9. IRELAND, NORTH -	50	+18	49	+20	374	+ 70	31	+ 5
	10. IRELAND, SOUTH -	46	+ 5	46	+ 7	416	+ 51	35	+ 4
	— CHANNEL ISLANDS -	64	+17	65	+17	558	+122	46	+10

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been cold and dry generally, with fair bright days and clear cold nights. Sharp frost has occurred on the ground at inland stations almost every night, and occasionally in the shade also. A little rain fell at some of the south-western stations on the 21st and 22nd, and small amounts at times in the north and east.

Temperature has continued below the mean, the deficit having ranged from 2° in the "Channel Islands" and 3° in nearly all other districts to 5° in "England E.," the "Midland Counties," and "England N.W." The highest of the maxima—which were recorded on the 19th in Ireland and on the 23rd in most parts of Great Britain—varied from 61° in the "Channel Islands," and 60° in the south and south-west of England, the north of Ireland, and west of Scotland, to 55° in "England N.E." and "N.W.," as well as in "Scotland N." The lowest of the minima were registered on rather irregular dates, and ranged from 24° in "England N.W." to 31° in "Ireland S." and to 41° in the "Channel Islands."

Rainfall has been much less than the mean in all districts; in most places there has been but little more than a trace observable.

Bright Sunshine has been fairly prevalent over the Kingdom generally; in Ireland and Scotland it has been more, in most parts of England rather less, than the mean. The percentage of the possible duration ranged from 65 in the "Channel Islands" and from 56 in "Scotland W." and 49 in "Scotland N." and "Ireland N." to 27 in the "Midland Counties."

Barometer and Wind.—The barometer has been highest over the northern parts of the Kingdom and lowest in the south, and the wind consequently Easterly or North-Easterly. No depressions have advanced immediately over us, but the presence of a disturbance over the Bay of Biscay on the 23rd caused the Easterly wind in the Channel to increase to the force of a moderate gale for some hours.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 91 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.*	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	48	35	46·7	37·6	41·9	− 0·4	13	17	5	0·22	−0·24	*	*	*	*
	Stornoway ⚓	51	32	48·6	33·6	40·7	− 3·9	18	31	2	0·03	−0·57	66·9	+27·9	65	+ 28
	Wick ⚓	53	28	51·1	34·4	42·4	− 1·4	35	21	4	0·29	−0·11	*	*	*	*
	Lairg ⚓	53	27	50·4	29·1	39·2	− 4·5	24	47	1	0·02	−0·50	*	*	*	*
	Glencarron ⚓	55	30	50·2	33·5	41·5	− 2·3	23	33	3	0·07	−0·89	*	*	*	*
	Fort Augustus ⚓	55	27	50·2	34·5	42·0	− 3·1	23	21	2	0·03	−0·45	32·6	?	33	?
	Fort William ⚓	54	31	51·9	34·2	42·6	− 3·9	37	22	0	—	−0·80	51·1	?	50	?
1. SCOTLAND, E.	Nairn ⚓	53	28	49·3	33·9	41·2	− 4·1	20	31	2	0·05	−0·25	*	*	*	*
	Aberdeen ⚓	52	31	48·1	35·9	41·7	− 3·1	17	24	2	0·19	−0·31	42·0	+ 6·8	41	+ 6
	Braemar ⚓	50	26	47·1	31·9	39·1	− 3·1	14	36	0	—	−0·55	32·7†	? †	32†	?†
	Ochtertyre ⚓	59	25	54·6	33·3	43·4	− 1·7	46	24	0	—	−0·55	*	*	*	*
	Leith ⚓	59	29	51·0	37·1	43·7	− 2·4	32	14	1	0·04	−0·34	*	*	*	*
	Marchmont ⚓	53	32	47·9	34·7	41·0	− 2·8	17	28	2	0·10	−0·45	41·0	?	41	?
2. ENGLAND, N.E.	Alnwick Castle ⚓	48	35	45·1	38·1	41·4	− 2·3	9	14	0	—	−0·52	*	*	*	*
	Durham ⚓	51	29	47·9	34·7	41·0	− 3·8	17	28	5	0·13	−0·37	28·0	0·0	28	0
	Shields ⚓	49	35	47·9	38·4	42·9	− 1·9	21	10	1	0·05	−0·37	*	*	*	*
	Scarborough ⚓	48	33	46·7	37·4	41·8	− 3·9	13	18	4	0·16	−0·30	*	*	*	*
	York ⚓	55	28	50·6	33·0	41·4	− 5·2	24	35	4	0·22	−0·20	26·2	− 6·8	26	− 7
	Spurn Head ⚓	50	36	47·1	39·4	43·1	− 2·5	19	7	1	0·16	−0·17	*	*	*	*
3. ENGLAND, E.	Hillington ⚓	53	29	50·6	35·1	42·5	− 4·2	32	19	0	—	−0·42	38·9	+ 1·3	39	0
	Yarmouth ⚓	48	35	45·4	38·4	41·7	− 3·8	10	14	2	0·03	−0·37	*	*	*	*
	Geldeston ⚓	51	28	47·9	34·8	41·0	− 5·6	17	27	1	0·01	−0·35	32·1	− 9·1	32	−10
	Cambridge ⚓	59	29	53·3	32·9	42·6	− 5·0	42	25	1	0·04	−0·36	28·3	− 8·6	29	− 8
	Rothamsted ⚓	56	33	50·7	35·1	42·5	− 3·9	32	19	1	0·01	−0·50	37·5	?	38	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall) ⚓	56	25	52·1	30·9	41·0	− 6·2	28	42	2	0·08	−0·30	*	*	*	*
	Loughborough ⚓	58	30	51·7	36·0	43·5	− 4·3	36	17	1	0·02	−0·40	*	*	*	*
	Stamford (Ketton Hall) ⚓	56	30	50·6	35·4	42·6	− 5·3	32	18	3	0·04	?	*	*	*	*
	Cheadle ⚓	53	33	48·1	34·7	41·1	− 4·5	17	28	2	0·07	−0·43	*	*	*	*
	Churchstoke ⚓	53	29	48·2	33·4	40·4	− 4·9	17	32	1	0·54	+0·12	21·6	−12·5	22	−13
	Hereford ⚓	55	30	50·7	37·1	43·6	− 3·7	32	14	1	0·22	−0·23	*	*	*	*
	Cirencester ⚓	55	33	50·1	35·3	42·3	− 4·4	30	19	1	0·05	−0·45	33·5	− 2·3	34	− 3
	Oxford ⚓	56	33	52·0	35·7	43·4	− 4·0	36	18	0	—	−0·42	29·6	− 5·6	30	− 5
5. ENGLAND, S.	London ⚓	58	35	53·1	37·4	44·9	− 4·2	40	13	0	—	−0·44	36·3†	+ 3·5†	37†	+ 5†
	Strathfield Turgiss ⚓	57	28	54·3	34·0	43·7	− 4·4	46	22	0	—	−0·42	*	*	*	*
	Dungeness ⚓	51	37	49·6	40·0	44·6	− 3·0	27	6	0	—	−0·42	*	*	*	*
	Hastings (St. Leonards) ⚓	55	36	51·5	37·9	44·4	− 3·9	34	11	0	—	−0·48	52·5	+10·7	53	+10
	Southampton ⚓	60	34	55·7	37·4	46·1	− 2·7	48	13	0	—	−0·51	43·1	+ 3·3	44	+ 3
	Hurst Castle ⚓	56	35	53·6	39·0	46·0	− 1·7	41	8	0	—	−0·43	*	*	*	*
	Stowell ⚓	57	31	51·7	36·2	43·6	− 3·6	36	16	0	—	?	27·6†	?†	28†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart) ⚓	60	32	53·7	34·1	43·4	− 3·4	43	22	1	0·04	−0·84	*	*	*	*
	Glasgow ⚓	54	33	50·4	36·8	43·3	− 2·4	31	15	0	—	−0·52	49·0	+16·0	49	+18
	Ardrossan ⚓	53	33	51·4	35·7	43·2	− 3·6	35	18	0	—	−0·51	*	*	*	*
	Glenlee ⚓	55	26	52·1	31·9	41·5	− 3·3	28	39	1	0·03	−0·64	*	*	*	*
	Douglas (Isle of Man) ⚓	52	37	49·9	38·6	44·0	− 1·6	28	10	1	0·05	−0·48	63·7	+18·7	63	+18
7. ENGLAND, N.W.	Newton Reigny ⚓	51	24	48·0	29·5	38·3	− 6·3	17	45	0	—	−0·43	27·1	− 8·9	27	− 9
	Stonyhurst ⚓	52	31	49·1	34·7	41·6	− 5·0	20	28	0	—	−0·56	31·8	− 3·2	31	− 4
	Blackpool ⚓	55	33	51·1	34·9	42·6	− 3·0	34	20	0	—	−0·41	18·0	−19·3	18	−19
	Manchester ⚓	52	33	49·5	35·6	42·2	− 4·3	28	18	1	0·05	−0·43	*	*	*	*
	Liverpool Obsy. (Bidston) ⚓	53	34	50·6	36·9	43·4	− 4·6	31	14	1	0·02	−0·36	*	*	*	*
	Llandudno ⚓	51	35	48·3	37·6	42·7	− 5·2	23	12	1	0·04	−0·37	54·4	+18·6	54	+18
	Holyhead ⚓	52	38	49·7	38·9	44·0	− 3·8	27	9	1	0·01	−0·43	*	*	*	*
8. ENGLAND, S.W.	Llandovery ⚓	58	29	53·4	34·9	43·7	− 2·5	42	20	0	—	−0·65	*	*	*	*
	Pembroke ⚓	54	37	50·3	39·7	44·8	− 2·6	29	6	1	0·04	−0·41	38·0	− 7·0	38	− 6
	Arlington (N. Devon) ⚓	55	34	51·0	36·6	43·5	− 2·4	33	15	0	—	−0·67	*	*	*	*
	Cullompton ⚓	57	30	52·4	34·4	43·0	− 4·5	39	21	2	0·10	−0·48	30·2	− 5·2	31	− 5
	Falmouth ⚓	51	42	49·2	42·5	45·6	− 2·8	25	0	2	0·55	−0·15	45·3	+ 2·8	46	+ 3
	Plymouth ⚓	60	39	54·5	40·6	47·2	− 2·6	42	4	2	0·07	−0·45	39·6	− 1·6	40	− 2
	Prawle Point ⚓	52	40	48·3	41·0	44·5	− 2·9	22	3	2	0·13	−0·31	*	*		*
9. IRELAND, N.	Malin Head ⚓	49	38	47·7	39·6	43·5	− 3·5	21	7	0	—	?	*	*	*	*
	Londonderry ⚓	60	32	56·9	34·2	45·0	− 2·8	54	22	1	0·01	−0·51	*	*	*	*
	Mullaghmore ⚓	52	37	50·7	38·9	44·5	− 3·4	31	9	0	—	−0·48	*	*	*	*
	Belmullet ⚓	55	36	53·3	39·1	45·9	− 3·0	39	8	0	—	?	*	*	*	*
	Markree Castle ⚓	54	27	53·1	32·8	42·5	− 4·1	42	26	0	—	−0·56	56·5	+22·3	56	+18
	Brookeborough ⚓	54	31	51·7	33·6	42·2	− 3·4	37	24	0	—	−0·58	*	*	*	*
	Armagh ⚓	53	29	51·2	33·2	41·8	− 4·5	26	34	1	0·01	−0·49	51·3	+16·3	51	+16
	Donaghadee ⚓	53	39	50·4	41·6	45·8	− 0·8	28	1	1	0·07	−0·39	*	*	*	*
	Edgeworthstown ⚓	53	31	51·0	34·6	42·4	− 3·4	34	21	0	—	−0·53	*	*	*	*
10. IRELAND, S.	Dublin ⚓	53	37	51·3	40·5	45·6	− 2·3	32	4	1	0·06	−0·40	54·5	+13·6	55	+14
	Parsonstown ⚓	57	31	53·7	35·4	44·1	− 2·9	42	18	0	—	−0·48	47·3	+ 8·0	47	+ 7
	Kilkenny ⚓	56	33	51·7	36·6	43·8	− 2·8	35	15	0	—	−0·50	*	*	*	*
	Waterford ⚓	54	34	52·3	38·0	44·8	− 3·6	36	11	1	0·04	−0·54	*	*	*	*
	Roche's Point ⚓	52	40	50·7	41·6	45·9	− 3·0	29	1	1	0·20	−0·55	*	*	*	*
	Valencia ⚓	57	39	54·3	42·9	48·3	− 1·0	44	0	0	—	−0·89	35·5	− 6·8	36	− 6
	Killarney ⚓	59	35	53·8	38·4	45·7	− 2·8	41	10	1	0·02	?	*	*	*	*
	Foynes ⚓	59	32	54·8	36·4	45·2	− 3·1	46	16	0	—	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's) ⚓	51	43	49·7	44·1	46·8	− 2·6	34	0	3	0·41	−0·12	*	*	*	*
	Jersey ⚓	61	41	54·9	43·9	49·1	− 0·8	50	0	0	—	−0·48	63·9	+17·1	65	+17

Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

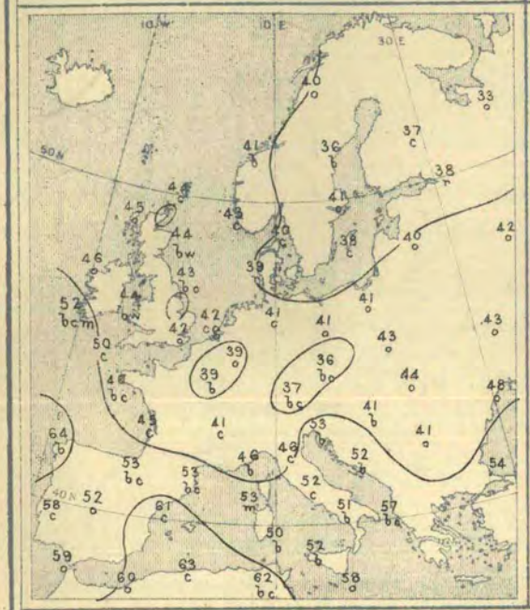
† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 19th April.

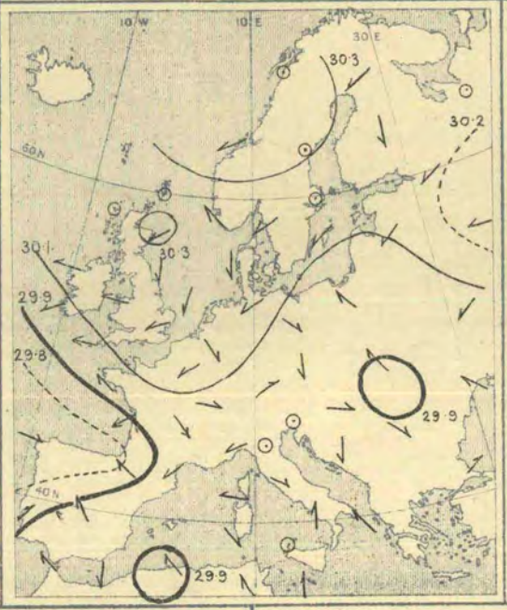
Temperature and Weather.

8 a.m.

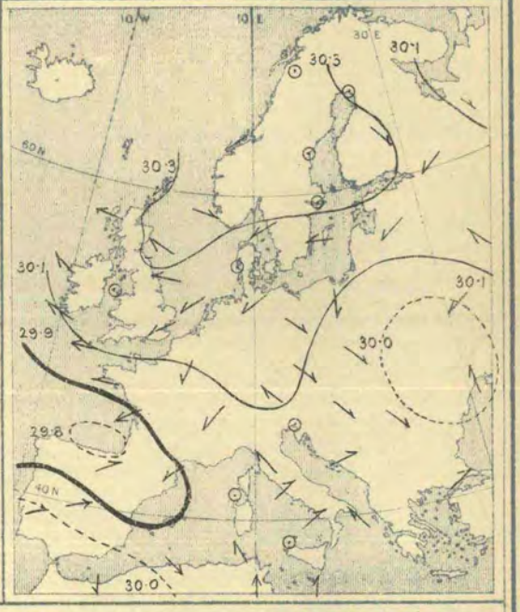


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine and bright, as a whole, over northern, western, and southern Europe, but cloudy in some localities; dull, gloomy, and unsettled over eastern and central Europe; raining at St. Petersburg, Copenhagen, and Fanö; foggy at Buda-Pesth. Rain falling later in the south-west of France, southern Russia, north Germany, Belgium, and at North Shields, as well as in some parts of London.

Temperature lower at the western and north-western stations, higher over Russia and Algeria than of late. Exceeding 60° over Algeria and at Corunna, exceeding 50° over southern Europe generally and at Valencia Island, lower elsewhere. Lowest, 35° to 40° over northern Russia, Finland, and Lapland, 36° at Prague, 37° at Munich and Breslau; 39° at Brussels, Paris, and Le Mans, 35° at York, 39° at Oxford and Loughborough, 42° in London. Rising during day to between 50° and 57° over Ireland, to between 60° and 68° over Italy, to between 65° and 72° in the south and south-west of France, and to between 70° and 84° over Algeria.

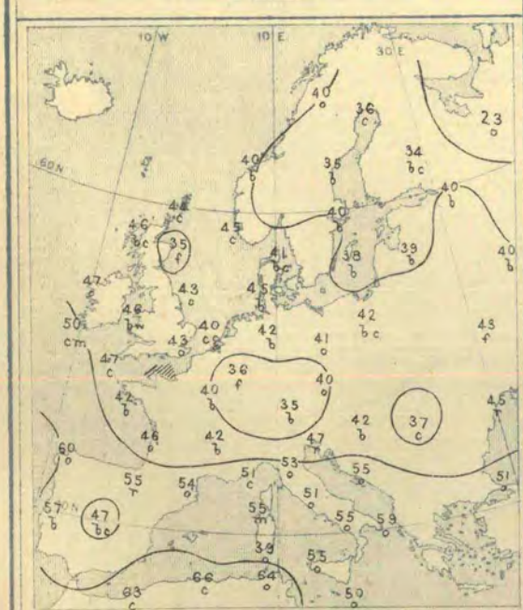
Wind very light from the North-Eastward over northern Europe and the Baltic, Northerly over the North Sea, North-Easterly to Easterly over England and Ireland; moderate Easterly in the Channel, fresh over the Bay of Biscay. Very variable elsewhere, but mainly Westerly over Austria and Southerly to Westerly in Portugal. Freshening slightly from the Eastward in the English Channel and west of France later, and from South-West over Spain; shifting to South-West at Biarritz and becoming strong from South at Tunis.

Barometer highest, (1) 30·3 ins. and more to 30·1 ins. over the whole of northern and north-western Europe; (2) 30·2 ins. and more over central Russia; (3) about 30·00 ins. over the south of Spain. Lowest, 29·8 ins. and less in a "hollow" over the north of Spain, and apparently still lower over the Atlantic between lat. 40° and 45°; 30·0 ins. and less over south-eastern Europe and part of north Germany, and rather below 29·9 ins. over Hungary. Very little change reported later, but the "hollow" over north of Spain beginning to move northwards.

Monday, 20th April.

Temperature and Weather.

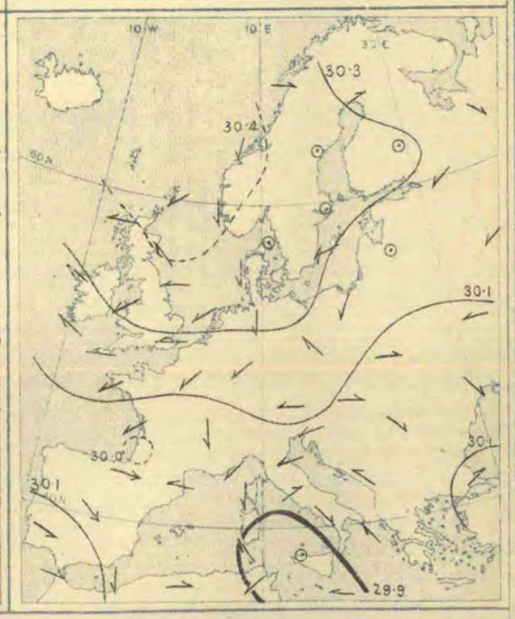
8 a.m.



Barometer and Wind.

8 a.m.

6 p.m.



Weather in morning fine generally over all but the south-western and southern parts of Europe, and in most places clear and bright; dull in the north of Spain, the south-west of France, and south of Russia, with rain in several places, as well as at Trieste and Breslau. Thunderstorm at Bordeaux. Falls of rain later over southern Russia, central Germany, and the north-eastern parts of Great Britain, slight showers at the Scaw and Wisby. Appearance of sky less settled than of late over England, lunar halos in south.

Temperature still low generally over western and northern Europe. Morning readings exceeding 60° at several Algerian stations, and exceeding 50° on the shores of the Mediterranean; lower elsewhere. Lowest, (1) 23° at Archangel, 33° at Uleaborg, 34° at Kuopio; (2) 35° at Munich, 36° at Brussels, 37° at Belfort, 40° at Paris; (3) 35° at Aberdeen, 38° at Leith, 39° at Nairn and York. Rising to between 48° and 52° over the greater part of England and Scotland later, and to 60° and more in many parts of France, to 70° at Cape Béarn, and to between 70° and 73° in the south of Italy.

Wind light Westerly at Bodö, North-Westerly at Archangel and Uleaborg, North-Easterly over the Baltic, north Germany, and the Netherlands, Easterly over the Bay of Biscay, Channel, and British Islands, Westerly over Spain; North-Westerly to South-Westerly over Austria, variable elsewhere. Westerly wind becoming strong over Spain later and a brisk Northerly wind setting in over the north of Italy, but Westerly current in extreme north showing no tendency to increase.

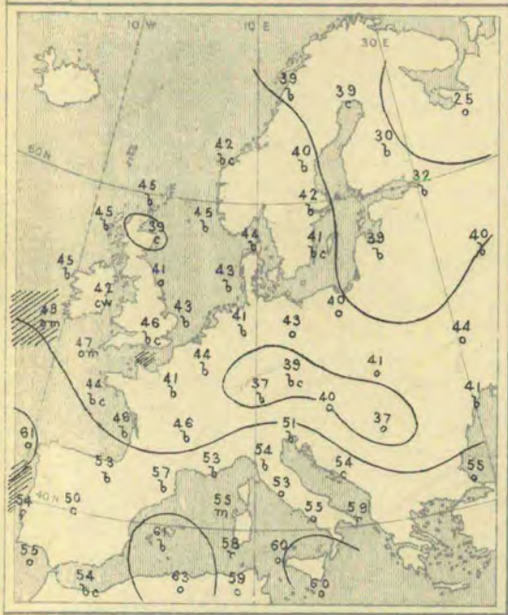
Barometer highest, (1) 30·4 ins. and more to 30·2 ins. over north-western and northern Europe; (2) 30·1 ins. and more to 30·0 ins. over the Iberian Peninsula and Algeria. Lowest, 30·0 ins. and less in a shallow depression over southern Russia, about 29·95 ins. in another over the southern part of the Bay of Biscay, and 29·9 ins. and less off Cape Sicié. No decided change later, except between Malta and the Tunisian coast, where a new depression began to appear.

Judd & Co Lith. 73 & 75 Farringdon Rd & Doctors' Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 21st April.

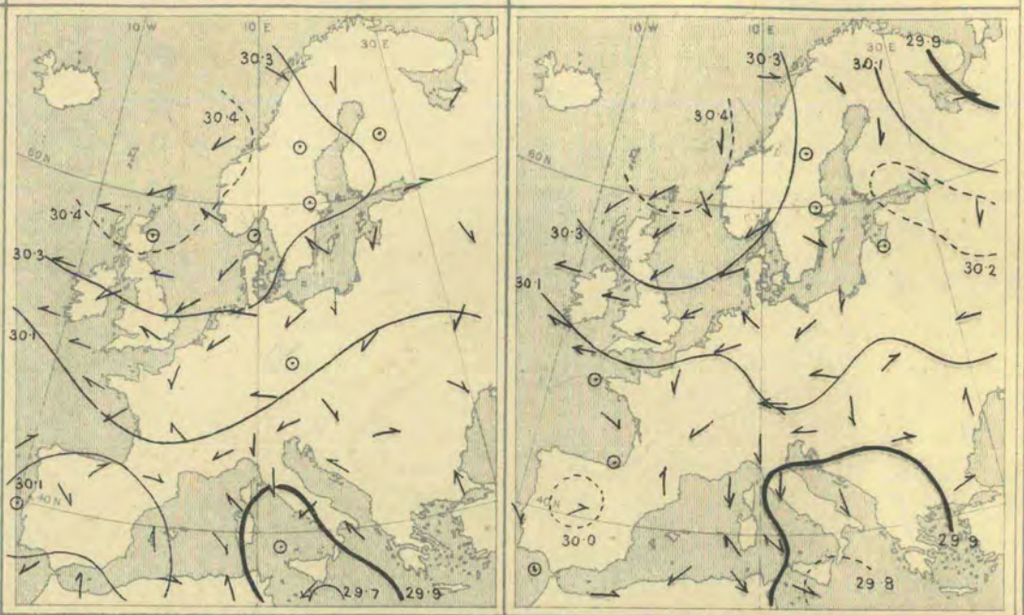
Temperature and Weather. 8 a.m.



Weather in morning fine and bright over nearly the whole of Europe, but overcast at our western and many of the southern stations, as well as over north Germany, the Balkan Peninsula, and the south-eastern parts of the Mediterranean. Slight rain at York and Cambridge, Brindisi, and Cagliari. Some rain later at Turin and Palermo, as well as in Poland and Austria, in Scotland and the north of Ireland, and later still over the south-western parts of England. Solar and lunar halos seen at many of our southern stations and at Biarritz.

Temperature changing little and irregularly. Exceeding 60° at a few of the extreme southern stations only, and exceeding 50° over south-eastern, southern, and south-western Europe; much lower elsewhere. Lowest, 25° at Archangel, 30° at Kuopio, 32° at St. Petersburg, 37° at Hermanstadt, Cracow, and Munich, 39° at Le Mans, Aberdeen, Faerder, Haparanda, and Bodö. Rising during day to between 50° and 58° in many parts of our Islands, to between 60° and 68° over the Channel Islands, the greater part of France, southern Italy, and at Lisbon, to 72° at Perpignan, 79° at Cape Béarn, and between 70° and 86° over Algeria.

Barometer and Wind. 8 a.m. and 6 p.m.

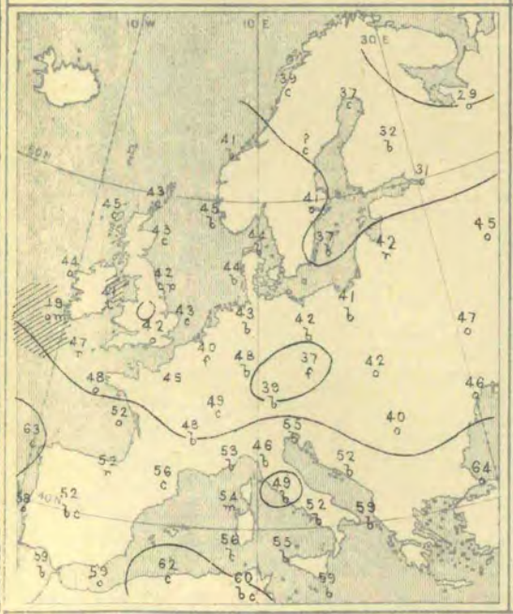


Wind light generally, North-Westerly over Lapland, Northerly to North-Easterly over Denmark, western Germany, the North Sea, and France, Easterly over Ireland, England, the Channel, and Bay of Biscay, South-Westerly in the north of Spain. South-Easterly to North-Easterly winds reported over south-eastern Europe and the Adriatic, Northerly breezes in the west of Italy. The South-Westerly wind extending to the south-west of France later, and the Northerly wind freshening over the eastern part of the Mediterranean and spreading to the Adriatic.

Barometer highest, 30·4 ins. and more to 30·2 ins. in a large anticyclone covering the whole of north-western Europe, and spreading eastwards in the form of a "col" over northern and central Russia; 30·1 ins. and more in a smaller system over Spain and the western parts of the Mediterranean. Lowest, 29·7 ins. in a depression lying to the southward of Malta, about 30·0 ins. and less in another approaching our south-western coasts from the south-westward, and below 30·2 ins. over the Kola Peninsula and the White Sea. Falling generally during the day, most over northern Russia, Brittany, and the south-west of the British Islands; depression near Malta moving Eastwards.

Wednesday, 22nd April.

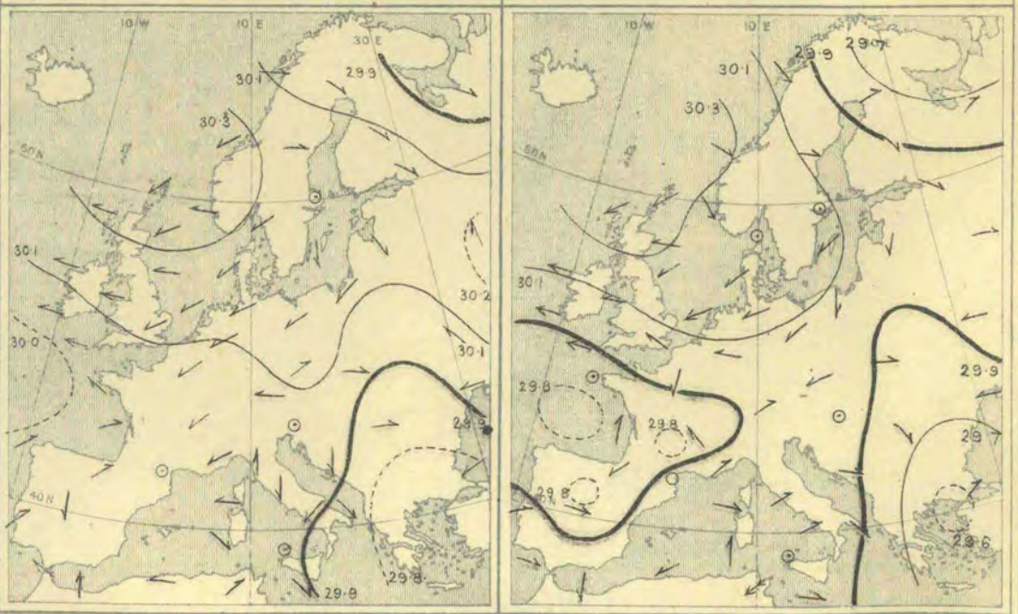
Temperature and Weather. 8 a.m.



Weather in morning fine and bright over Norway, the Baltic, north Germany, the North Sea, and some of the northern parts of our Islands, also at several stations in Austria, Italy, and the south of France; cloudy or overcast elsewhere, with rain in the south-west of England, at Lorient, and Biarritz. Rain later in the west and south of France, Spain and Portugal, in the south of Russia, the Baltic Provinces, and the south-west of our Islands, and slight showers at Stornoway, Sumburgh Head, and Bodö. Solar and lunar halos again seen in the south of England.

Temperature not changing much; above 50° over the south-western and southern parts of Europe generally, above 60° on some parts of the Spanish and Algerian coasts and at Constantinople, lower elsewhere. As low as 29° at Archangel, 31° at St. Petersburg, 32° at Kuopio, 35° at Uleaborg and Hangö, 39° at Munich and Oxford, and 40° at Loughborough. Rising during day to between 50° and 55° over England and Ireland, 60° and more in many parts of France and Italy, and to 70° at Lyons, and still higher over Algeria. Cold again at night at the British stations and Brussels.

Barometer and Wind. 8 a.m. and 6 p.m.



Wind Westerly to North-Westerly over northern Europe, Northerly over the Baltic, Poland, Hungary, the Adriatic, and south of Italy, North-Easterly over Germany, the Netherlands, and North Sea, Easterly over the British Islands and Brittany (fresh at the western, southern, and eastern stations), South-Westerly in the north of Spain and south-west of France. No important change over north-western Europe later, but backing to South-West in Italy.

Barometer highest, 30·3 ins. and more to 30·2 ins. in an anticyclone over the northern parts of the British Islands and the greater part of the North Sea and Scandinavia, 30·2 ins. and more over central Russia, 30·0 ins. and more over the southern half of Spain and the Mediterranean. Lowest, 29·8 ins. and less over the Balkan Peninsula, Greece, and Asia Minor, 29·9 ins. and less over the Bay of Biscay, and also over the White Sea. Depression over Bay of Biscay growing deeper during day and spreading over France, that over northern Europe moving southwards, and a well-formed system appearing on the Bosphorus.

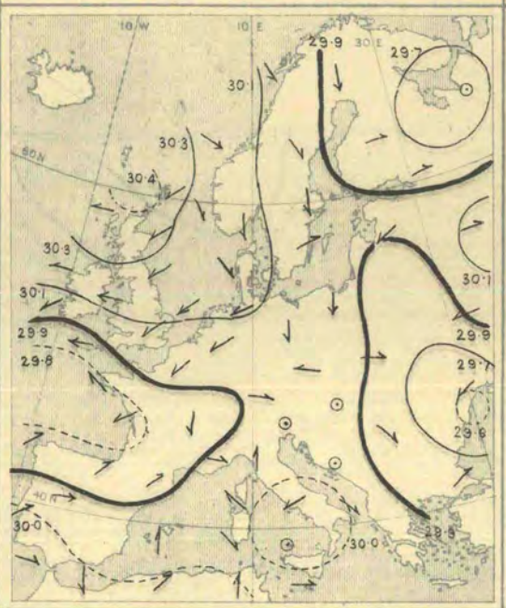
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

III.—SUMMARY OF WEATHER OVER EUROPE.

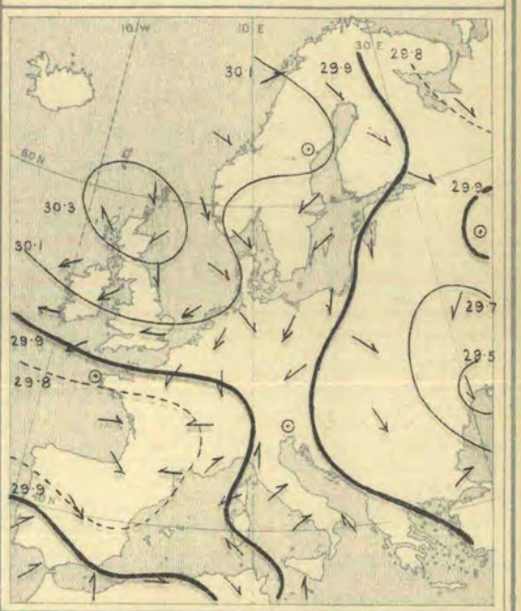
Thursday, 23rd April.

Temperature and Weather. — 8 a.m.

Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright over the greater part of north-western Europe, at some of the Baltic stations, in Austria and the south of Italy, as well as over Algeria. Very variable elsewhere; overcast in many places, raining at Christiansund, the Scilly Islands, and at some stations in the west and south of France, the south of Russia, and north Germany. Considerable rain later in the west and south of France, in south Germany, Austria, and south of Russia, and slight falls in the north of our Islands and at Christiansund, and also over Algeria. Lunar halo seen at Roche's Point.

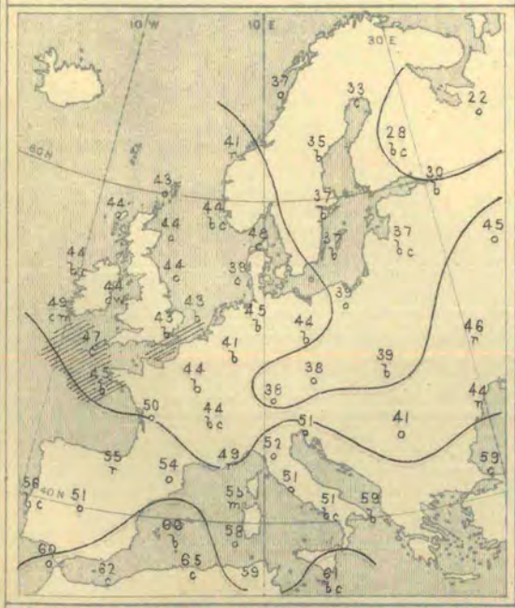
Temperature slightly higher in the west and south than of late, morning readings exceeding 60° over Algeria, the east of Spain, exceeding 50° at most other southern stations and in the west of France; lower elsewhere. Lowest of all, 30° to 35° over Lapland, Finland, and the north of Russia, 38° at Wisby, 39° to 41° over north Germany, and 42° at Nairn, Prague, Vienna, and Hermanstadt. Rising to between 50° and 58° over the greater part of Ireland, England, and the north of France later, exceeding 60° in the southern departments and over Italy, and exceeding 70° over Algeria; subsequently falling fast over the British Islands.

Wind light to fresh from the Northward over Lapland, Sweden, Finland, and the Baltic Provinces, as well as over the eastern parts of France; light North-Easterly in Scotland, fresh to strong from North-East and East over England and Ireland, but South-Westerly and Westerly over Spain and the neighbourhood of the Pyrenees, Southerly in Algeria. Very variable over Russia and Austria-Hungary. Increasing to a moderate gale in the English Channel later, but backing to West over Lapland.

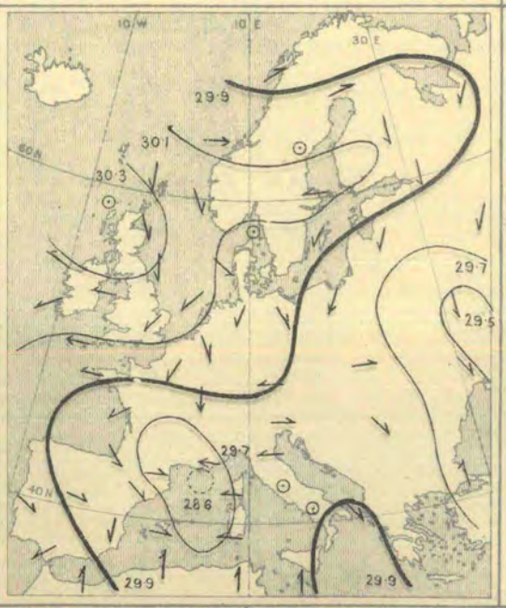
Barometer highest, 30·3 ins. and more to 30·1 ins. in a large anticyclone lying over all the northern and eastern parts of our Islands, the North Sea, Denmark, and Norway; 30·1 ins. and more over central Russia; 30·0 ins. and more over Algeria and the south-west of Spain. Lowest, 29·6 ins. and less in a depression lying over the northern side of the Black Sea, 29·7 ins. and less in another over the White Sea and north of Russia, and 29·8 ins. and less in a third over the Bay of Biscay. Latter disturbance spreading south-eastwards later, and disturbance near Odessa moving northwards slowly.

Friday, 24th April.

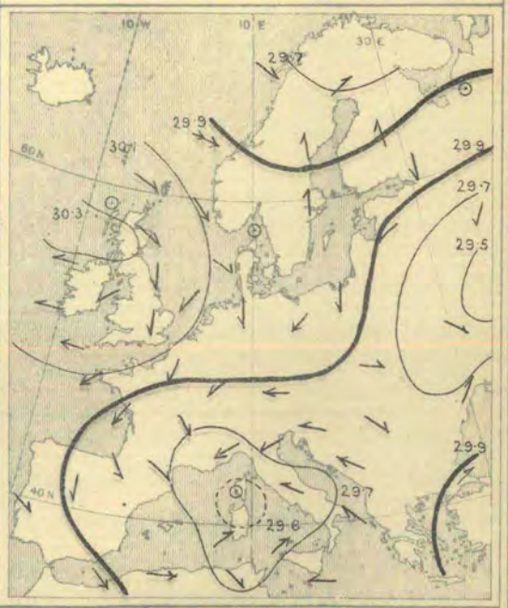
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright over Sweden, the Baltic, the North Sea, England, and the north of France; cloudy or overcast elsewhere, unsettled over the southern parts of France and Russia, with rain at many stations. Considerable rain later in the south of France, the north of Italy, south Germany, and some parts of Austria and Russia; slight showers at several of our northern stations also—as much as 0·20 in. at Christiansund.

Temperature rather lower in the western districts than on Thursday. Morning readings exceeding 50° in the extreme south-west, south, and south-east only (61° at Nemours and Malta, 65° at Algiers, 66° at Palma); below 40° over northern and the greater part of central Europe, and as low as 22° at Archangel, 28° at Kuopio, 30° at St. Petersburg, 31° at Hangö. Rising later to between 50° and 58° in many parts of our Islands, and to upwards of 60° in some parts of France, in Italy, and Spain, to 73° at Palermo, and a rather higher value in some parts of Algeria; falling fast again over our Islands and France towards night.

Wind South-Westerly in Lapland, Northerly over Finland, the Baltic Provinces, and Germany; North-Westerly over Austria-Hungary. Light and variable in Scotland, North-Easterly to Easterly over England, Ireland, the Bay of Biscay, strong East-North-Easterly in the Channel, and moderate North-Westerly to Westerly in Spain; moderate Southerly over Algeria, Easterly in the south of France. The Easterly wind moderating a little in the Channel later, a North-Westerly gale setting in over Norway, and North-Westerly airs in Scotland.

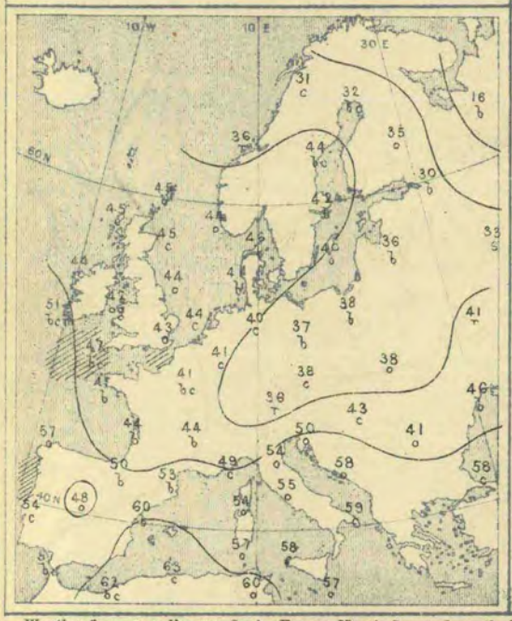
Barometer highest, 30·3 ins. and more to 30·1 ins. in a large anticyclone covering the British Isles, the North Sea, and south of Norway; 30·0 ins. and more over the south-west of Spain; 29·9 ins. and more over the southern parts of Italy. Lowest, 29·5 ins. and less in a depression over the south of Russia; about 29·6 ins. in another lying over the north-western parts of the Mediterranean and south-west of France; and 29·9 ins. and less in a new one advancing towards Lapland from the north-westward. Latter disturbance spreading south-eastwards and southwards later, the large northern anticyclone beginning to move southwards and decrease in intensity, while the depression over southern Russia moved briskly to the north-eastward.

Judd & Co Lith. 73 & 75. Farringdon Rd & Doctors Commons.

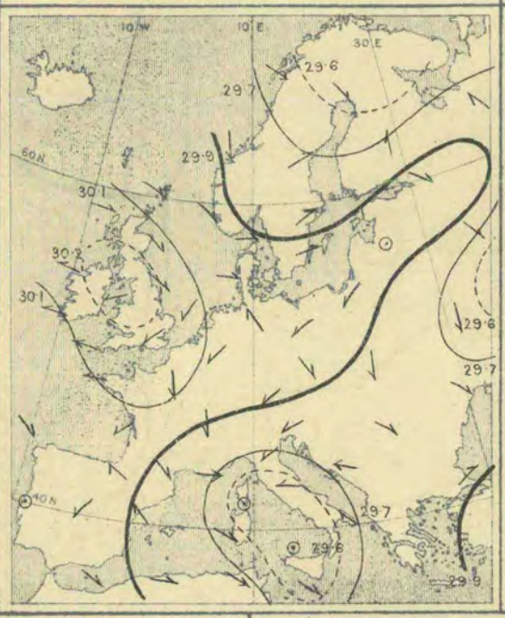
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 25th April.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

Weather fine generally over Spain, France, North Sea, and north Germany: fair over the British Islands as a whole: cloudy or overcast and unsettled elsewhere, with snow and rain both in central Russia and the northern parts of Scandinavia. Heavy rain over the south of Italy later and a considerable amount at Turin; small quantities, locally, in many other places—more especially over Spain and Portugal, and in the north of Scotland and west of Norway.

Temperature continuing low generally, with frosts on the ground in the night at most inland stations over the British Islands. Morning readings exceeding 50° in the extreme south-east, south, and south-west, and at Valencia Island only; exceeding 40° over north-western and south-eastern Europe. Below 40° elsewhere, and as low as 16° at Archangel, 30° at St. Petersburg, 31° at Bodö, 33° at Moscow, 36° at Munich, Swinemunde, and Christiansund, 38° at Le Mans. Rising later to 50° and more over our Islands, to 60° and more in the south of France and over Italy, to 70° at Palermo, nearly 80° at Cape Bearn, and to between 88° and 99° over the inland parts of Algeria.

Wind moderate to fresh from between South-West and North-West over the northern countries; light Westerly in Scotland; moderate Northerly along our eastern coasts: North-Easterly to Easterly in Ireland, England, the Channel, and over the Bay of Biscay. North-Easterly over the south-east of France and northern Italy, North-Westerly over Sardinia, Tunis, and Malta. Very variable elsewhere; Westerly wind freshening a little in some parts of Scotland later.

Barometer highest, 30·2 ins. and more to 30·1 ins. in the anticyclone over the British Islands, and exceeding 30·0 ins. in a "ridge" extending thence across the North Sea and Netherlands to north Germany. Lowest, 29·6 ins. and less in a large depression over the eastern side of the Mediterranean, in another over central Russia, and in a third over Lapland. Gradients slight in our neighbourhood, moderate on the Continent. Russian depression filling up later, those in far north and far south undergoing slight modifications. Anticyclone over British Islands moving southwards.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇛ = a heavy gale; ➤ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

Throughout the earlier half of this week pressure was continuously high over northern and north-western Europe and the British Islands, low in the south-west and south. At first the only depression of importance was one which advanced from Spain to the Bay of Biscay, but after the 20th others began to appear over the north of Russia. These latter moved in a south-easterly direction, their influence being augmented by yet another system which appeared near Malta on Tuesday, reached the Bosphorus next day, the Crimea on Thursday, and central Russia on Friday (24th). In the meantime the disturbance over the Bay of Biscay passed along the foot of the Pyrenees to the Mediterranean, and reached Italy by the morning of the 25th. Thus, except at the extreme south-western and southern stations, the wind has been mainly Northerly to Easterly, and has at times blown strongly on our southern and south-western coasts. Temperature has been very low for the time of year, the air dry, night frosts have been frequent over western Europe, and, except over the more southern countries, there has been very little rain.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 92.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	4·8	?	42	?	EASTBOURNE	54·1	?	55	?
OSWALDKIRK (Yorkshire)	32·2	?	32	?	TORQUAY	46·3*	?	47*	?
WORKSOP	21·2	−10·3	21	−10	ARLEY COTTAGE (County Cavan)	40·9	?	40	?
THURCASTON (Leicestershire)	28·3	− 0·8	29	− 1					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 17.] *Third Series.* WEEK ENDING SATURDAY, 2ND MAY, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 98.)	Observed during the Week.					Above or below the Mean for the Week.	Accumulated.							
								For the Week.				From January 4th, 1891.			
		Highest.	Lowest.	Averages of Daily Maxima	Averages of Daily Minima.	Averages of Daily Mean.		Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	57	28	48·4	35·4	41·6	4 below.	18	−11	25	+12	207	+31	578	+ 65
	1. SCOTLAND, EAST -	61	26	51·6	36·7	43·8	2 below.	35	− 5	15	+ 4	228	−27	626	+ 77
	2. ENGLAND, N.E. - -	63	28	54·5	41·2	46·6	0 (average)	36	0	2	− 4	201	−38	568	+ 82
	3. ENGLAND, EAST -	67	25	57·6	39·1	47·8	0 (average)	53	+ 5	8	0	280	−30	667	+122
	4. MIDLAND COUNTIES	65	23	57·2	38·6	47·4	1 below.	52	+ 3	10	+ 1	308	−26	641	+105
	5. ENGLAND, SOUTH -	67	28	56·7	41·5	48·8	1 below.	50	− 4	1	− 3	304	−58	557	+146
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	56	24	50·9	37·6	44·0	3 below.	32	−10	12	+ 4	275	+15	440	+ 36
	7. ENGLAND, N.W. -	60	32	53·0	40·7	46·6	1 below.	33	− 6	4	− 2	272	+ 8	438	+ 31
	8. ENGLAND, S.W. -	62	29	54·6	42·7	48·4	0 (average)	45	− 4	0	− 3	339	−34	419	+107
	9. IRELAND, NORTH -	61	29	51·6	39·4	45·2	3 below.	33	−12	7	+ 1	342	+ 2	377*	+ 24
	10. IRELAND, SOUTH -	66	30	55·2	41·2	47·8	1 below.	44	− 6	2	− 2	457	+15	296	+ 22
	— CHANNEL ISLANDS -	63	41	56·0	46·2	50·9	0 (average)	62	+ 8	0	0	434	−13	162	+ 40

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 98.)	Rainfall. For the Week.			Rainfall. From January 4th, 1891.				Bright Sunshine. For the Week.				Bright Sunshine. From January 4th, 1891.			
		Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	6	9	3 more.	78	− 3	16·2	+ 0·2	21	−13	19	−12	350*	+ 31	27	+ 1
	1. SCOTLAND, EAST -	4	8	3 more.	47	−18	6·4	− 3·2	31	+ 3	29	+ 2	394	+ 33	31	+ 2
	2. ENGLAND, N.E. - -	3	3	1 less.	56	− 6	5·1	− 2·2	29	− 7	28	− 4	360	+ 51	28	+ 4
	3. ENGLAND, EAST -	3	3	1 less.	55	− 6	4·6	− 2·5	28	−13	27	−12	395	+ 18	30	+ 1
	4. MIDLAND COUNTIES-	4	6	1 more.	48	−10	5·4	− 2·3	31	− 5	30	− 5	374	+ 41	29	+ 3
	5. ENGLAND, SOUTH -	3	3	1 less.	47	−10	6·3	− 2·2	30	− 8	30	− 9	405	+ 55	31	+ 4
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	5	9	3 more.	56	−13	10·5	− 5·7	27	−14	26	−14	394	+ 57	30	+ 3
	7. ENGLAND, N.W. - -	4	9	4 more.	45	−19	5·8	− 4·0	22	−16	21	−16	369	+ 43	28	+ 2
	8. ENGLAND, S.W. - -	4	8	3 more.	47	−18	8·0	− 4·7	33	− 9	33	− 9	468	+ 58	36	+ 4
	9. IRELAND, NORTH -	6	9	4 more.	61	−12	6·9	− 3·9	25	−15	24	−14	399	+ 60	31	+ 4
	10. IRELAND, SOUTH -	5	5	1 less.	53	−15	6·7	− 6·3	29	−14	29	−13	445	+ 42	34	+ 3
	— CHANNEL ISLANDS -	4	3	2 less.	53	−19	6·8	− 3·7	39	−10	39	−11	597	+117	45	+ 8

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather during this period has undergone a complete change. The cold, dry, anti-cyclonic conditions gradually disappeared early in the week and gave place to cyclonic, showery, and milder weather generally. Thunderstorms occurred in several parts of England and Ireland on the 1st.

Temperature has again been below the mean in Scotland and Ireland, but about the mean value over the greater part of England. The highest of the maxima, which were recorded either on the 28th or 30th, ranged from 67° in "England E." and "S." and 66° in "Ireland S." to 57° in "Scotland N." and 56° in "Scotland W." The lowest of the minima, which occurred during the earlier days of the period, varied between 24° and 28° in Scotland, 29° and 30° in Ireland, and 23° and 32° over England. In the "Channel Islands" however, the lowest reading was 41°.

Rainfall again shows a deficit over the north-eastern, eastern, and southern parts of England, as well as in the south of Ireland and the "Channel Islands." In all other parts of the Kingdom there has been an excess.

Bright Sunshine has been much less prevalent than of late, and, except in "Scotland E.," the weekly values are below the mean for the time of year. The percentage of the possible duration ranged from 19 in "Scotland N." and 21 in "England N.W." to 33 in "England S.W." and to 39 in the "Channel Islands."

Barometer and Wind.—Soon after the commencement of the period the anti-cyclone recently prevailing over our Islands moved away to the eastward and dispersed. Depressions then appeared both to the southward and northward of the United Kingdom, but none travelled immediately over us until Friday, when a somewhat deep disturbance passed east-north-eastwards across Scotland and the North Sea to Scandinavia. This system was followed by a "V"-shaped secondary, which was disappearing south-eastwards at the end of the week. Moderate winds from between South-West and North-West were generally experienced over our Islands, but on May 1st the South-Westerly wind increased considerably in force over England, and at some of the Channel stations attained the strength of a slight gale.

* This value has been altered slightly owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 97 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	49	29	47·3	36·7	41·8	− 1·5	15	21	3	0·28	−0·16	*	*	*	*
	Stornoway	50	30	47·1	35·4	41·0	− 4·6	14	25	6	0·29	−0·31	28·3	−12·7	26	− 12
	Wick	53	30	48·7	37·0	42·6	− 2·1	25	14	5	0·68	+0·29	*	*	*	*
	Lairg	53	30	47·8	33·6	40·4	− 4·4	16	31	6	0·51	0·00	*	*	*	*
	Glencarron	52	31	47·3	34·4	40·5	− 4·3	15	28	7	1·57	+0·61	*	*	*	*
	Fort Augustus	57	28	50·8	34·3	42·2	− 3·8	34	22	6	1·07	+0·59	14·5	?	14	?
	Fort William	53	32	49·5	36·6	42·7	− 4·9	28	15	6	1·35	+1·07	18·6	?	18	?
1. SCOTLAND, E.	Nairn	60	30	50·7	35·9	42·9	− 3·7	32	17	5	0·97	+0·66	*	*	*	*
	Aberdeen	60	34	51·1	38·4	44·5	− 1·4	33	10	5	0·48	−0·02	39·6	+ 1·9	37	+ 2
	Braemar	54	26	46·9	32·4	39·3	− 4·2	14	35	3	0·75	+0·23	35·0†	? †	33†	?†
	Ochtertyre	61	31	54·6	36·3	45·0	− 1·0	46	16	4	1·18	+0·63	*	*	*	*
	Leith	61	35	55·6	39·7	47·3	+ 0·1	47	6	3	0·84	+0·46	*	*	*	*
	Marchmont	58	33	50·7	37·4	43·7	− 1·2	31	13	4	0·52	−0·03	26·0	?	23	?
2. ENGLAND, N.E.	Alnwick Castle	58	36	51·9	40·3	45·8	+ 0·9	34	5	3	0·22	−0·30	*	*	*	*
	Durham	63	28	56·0	38·1	46·6	+ 0·6	48	11	3	0·09	−0·40	26·0	− 5·4	25	− 6
	Shields	58	34	53·4	39·9	46·3	+ 0·4	39	6	2	0·05	−0·36	*	*	*	*
	Scarborough	61	33	55·4	39·6	47·1	+ 0·3	46	7	4	0·55	+0·09	*	*	*	*
	York	60	28	57·0	37·1	46·6	− 1·1	53	14	5	0·58	+0·16	29·8	− 6·3	29	− 5
	Spurn Head	61	38	53·0	42·3	47·4	+ 0·7	38	0	3	0·41	+0·06	*	*	*	*
3. ENGLAND, E.	Hillington	65	29	57·8	37·8	47·3	− 0·6	54	12	4	0·55	+0·13	27·2	−13·0	26	−16
	Yarmouth	63	37	54·0	42·7	47·8	+ 1·0	41	0	3	0·20	−0·20	*	*	*	*
	Geldeston	65	25	57·3	39·0	47·7	0·0	53	8	2	0·11	−0·27	27·1	−17·7	27	−18
	Cambridge	67	27	61·4	38·1	49·2	+ 0·5	67	11	3	0·37	−0·04	30·5	− 8·7	30	− 8
	Rothamsted	64	26	57·6	37·7	47·1	− 0·4	54	12	3	0·49	−0·01	36·3	?	26	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	65	28	58·6	38·9	48·3	− 0·1	57	9	4	0·28	−0·12	*	*	*	*
	Loughborough	65	27	58·9	39·1	48·5	− 0·8	58	8	5	0·34	−0·10	*	*	*	*
	Stamford (Ketton Hall)	65	23	58·4	36·0	46·5	− 2·8	57	17	4	0·49	?	*	*	*	*
	Cheadle	63	32	54·9	38·9	46·5	− 0·3	45	9	4	0·80	+0·30	*	*	*	*
	Churchstoke	62	30	56·0	38·1	46·6	+ 0·2	49	11	4	0·63	+0·18	34·0	− 2·5	33	− 3
	Hereford	65	33	58·0	40·6	48·9	+ 0·5	54	4	4	0·36	−0·09	*	*	*	*
	Cirencester	59	29	55·6	37·7	46·2	− 1·5	47	12	4	1·06	+0·56	29·6	− 9·4	29	− 9
	Oxford	62	30	57·4	39·1	47·8	− 0·8	53	8	3	0·55	+0·11	26·2	−11·8	26	−11
5. ENGLAND, S.	London	64	33	59·3	41·3	49·9	− 0·6	58	2	2	0·27	−0·17	26·2†	− 8·6†	26†	− 8†
	Strathfield Turgiss	67	28	59·5	37·8	48·1	− 1·3	60	12	3	0·47	+0·05	*	*	*	*
	Dungeness	64	36	54·4	42·7	48·3	− 0·5	44	0	4	0·30	−0·11	*	*	*	*
	Hastings (St. Leonards)	63	34	55·3	42·8	48·8	− 0·6	48	0	3	0·17	−0·31	31·2	−13·6	31	−14
	Southampton	67	35	57·6	41·8	49·2	− 0·9	51	1	4	0·37	−0·14	34·2	− 7·8	34	− 8
	Hurst Castle	62	39	55·9	43·9	49·6	+ 0·8	53	0	3	0·37	−0·05	*	*	*	*
	Stowell	60	33	55·0	40·5	47·4	− 1·0	44	4	3	0·39	?	25·8†	?†	25†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart)												*	*	*	*
	Glasgow	55	34	51·0	38·5	44·5	− 2·3	32	10	5	1·38	+0·86	21·3	−13·7	20	−12
	Ardrossan	52	34	49·6	39·6	44·4	− 3·8	27	7	5	0·93	+0·41	*	*	*	*
	Glenlee	55	24	51·9	33·9	42·5	− 3·8	38	23	5	0·73	+0·08	*	*	*	*
	Douglas (Isle of Man)	56	34	51·2	38·5	44·6	− 2·2	33	10	5	0·48	−0·04	32·7	−15·4	31	−15
7. ENGLAND, N.W.	Newton Reigny	60	32	52·7	38·5	45·3	− 0·3	38	10	4	0·81	+0·36	25·7	−13·4	25	−12
	Stonyhurst	55	32	52·2	38·9	45·2	− 2·6	35	9	4	1·71	+1·15	23·6	−14·4	23	−14
	Blackpool	57	35	51·9	40·1	45·7	− 1·1	34	5	3	1·15	+0·73	13·0	−27·5	12	−27
	Manchester	59	34	54·2	39·5	46·5	− 1·1	42	7	5	1·15	+0·65	*	*	*	*
	Liverpool Obsy. (Bidston)	60	37	54·6	42·1	48·1	− 1·2	43	0	5	0·37	−0·01	*	*	*	*
	Llandudno	58	37	53·6	42·7	47·9	− 0·8	41	0	3	0·31	−0·10	25·3	−13·7	25	−14
	Holyhead	54	40	51·9	43·4	47·5	− 1·4	39	0	5	0·45	+0·01	*	*	*	*
8. ENGLAND, S.W.	Llandovery	61	29	56·1	38·9	47·1	− 0·3	49	9	4	2·01	+1·37	*	*	*	*
	Pembroke	51	40	49·9	43·7	46·7	− 1·7	33	0	3	0·64	+0·19	33·4	−13·2	33	−13
	Arlington (N. Devon)	58	36	54·7	41·7	47·9	+ 0·8	43	1	5	1·01	+0·33	*	*	*	*
	Cullompton	62	32	58·2	42·1	49·8	+ 1·2	55	0	3	0·47	−0·18	35·4	− 1·8	35	− 2
	Falmouth	56	40	53·2	44·7	48·8	− 0·7	48	0	4	0·79	+0·11	35·3	− 9·4	35	− 9
	Plymouth	61	39	57·2	45·1	50·9	− 0·1	62	0	5	0·46	−0·05	33·3	−10·2	33	−10
	Prawle Point	61	40	53·1	42·9	47·8	− 0·5	41	0	4	0·37	−0·03	*	*		*
9. IRELAND, N.	Malin Head	54	37	48·1	40·1	43·9	− 3·3	21	5	5	0·55	?	*	*	*	*
	Londonderry	57	37	51·8	40·0	45·6	− 3·3	34	6	6	1·14	+0·62	*	*	*	*
	Mullaghmore	55	39	50·9	41·0	45·7	− 3·2	30	3	6	0·63	+0·14	*	*	*	*
	Belmullet	53	38	50·7	41·9	46·1	− 3·7	29	0	6	0·85	?	*	*	*	*
	Markree Castle	56	29	51·7	38·1	44·6	− 3·0	35	11	5	0·74	+0·22	24·2	−15·6	23	−16
	Brookeborough	55	34	51·7	38·2	44·5	− 2·0	34	11	6	1·16	+0·58	*	*	*	*
	Armagh	56	30	53·1	36·5	44·4	− 3·1	40	15	5	1·15	+0·65	23·7	−14·3	23	−14
	Donaghadee	58	39	52·6	43·0	47·6	− 0·2	39	0	6	0·80	+0·34	*	*	*	*
	Edgeworthstown	61	31	53·6	35·6	44·2	− 3·2	42	18	5	?	?	*	*	*	*
10. IRELAND, S.	Dublin	66	36	56·6	41·9	45·9	− 0·1	49	0	4	0·41	−0·05	31·9	−12·1	31	−12
	Parsonstown	63	30	55·0	39·6	46·9	− 1·3	44	7	4	0·44	−0·05	23·5	−17·4	23	−17
	Kilkenny	65	30	56·3	39·1	47·3	− 0·7	49	8	4	0·36	−0·13	*	*	*	*
	Waterford	61	33	55·9	40·9	48·0	− 1·6	47	3	4	0·45	−0·13	*	*	*	*
	Roche's Point	57	37	53·9	43·1	48·2	− 1·8	43	0	4	0·80	+0·08	*	*	*	*
	Valencia	56	35	53·7	42·6	47·9	− 2·2	41	0	6	0·79	−0·06	32·3	−11·9	32	−11
	Killarney	60	31	55·5	39·2	47·0	− 2·5	47	8	6	0·59	?	*	*	*	*
	Foynes	61	36	54·5	43·0	48·5	− 1·0	46	0	6	0·47	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	56	43	53·0	46·0	49·3	− 1·2	51	0	4	0·43	−0·08	*	*	*	*
	Jersey	63	41	58·9	46·4	52·4	+ 1·2	73	0	3	0·12	−0·35	39·0	−10·2	39	−11

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked 𝒮 with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

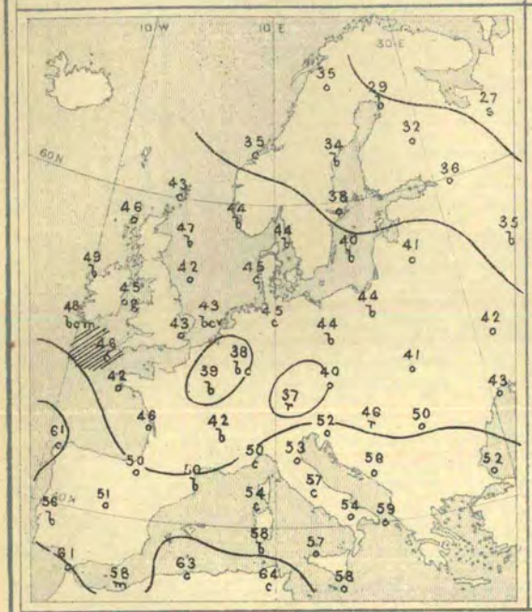
† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 26th April.

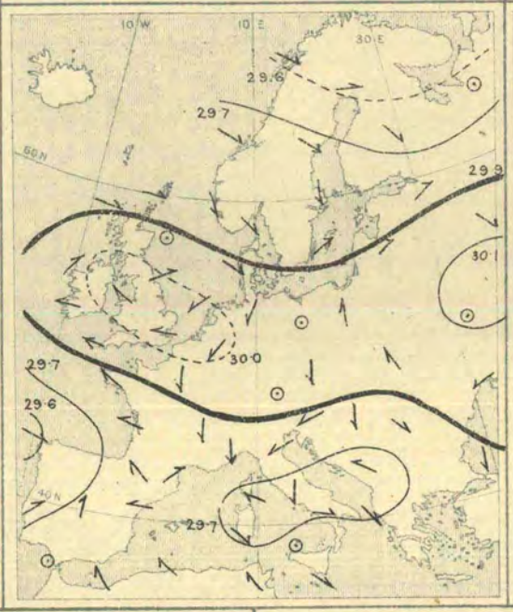
Temperature and Weather.

8 a.m.

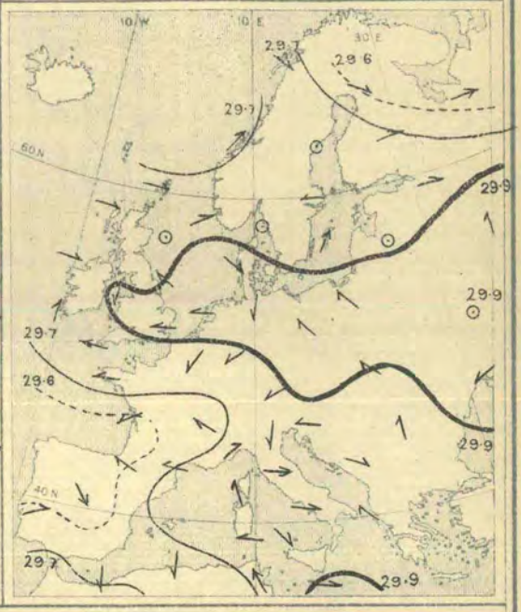


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over the greater part of the British Islands, the North Sea, France, Germany, the Baltic, and Russia; cloudy or overcast elsewhere, and unsettled both on the Spanish coast, over the Mediterranean, and south-eastern Europe. Rain falling at Turin, Munich, and Buda-Pesth, snow at Archangel. Rain later over Austria and north of Italy; thunderstorm at Pesaro.

Temperature still low generally. Morning readings exceeding 60° at some Algerian and Spanish stations, and exceeding 50° over southern, south-western, and south-eastern Europe generally; much lower elsewhere. Below 40° over northern Europe and some parts of Germany and France; lowest of all, 27° at Archangel, 29° at Haparanda, 32° at Kuopio, 35° at Christiansund, Münster, and Le Mans, 37° at Munich. Rising to between 50° and 55° over our Islands later, to between 60° and 70° over France and Italy, and to between 70° and 80° over Algeria. Falling fast again over the British Islands and France towards night.

Wind Westerly and North-Westerly over the whole of northern Europe and the north of Scotland, mainly Easterly over the southern parts of our Islands, the Channel, and the Bay of Biscay, North-Easterly to Northerly over Italy. Light Southerly breezes in Algeria, South-Westerly in Portugal. No important change later.

Barometer highest, 30·1 ins. and more to 30·0 ins. over the southern half of Russia, 30·0 ins. and more over England and the Netherlands, and exceeding 29·9 ins. in a broad band extending from the Atlantic across the British Islands, the north of France, and central Europe to Russia. Lowest, 29·7 ins. and less in a depression over Sardinia, Italy, Dalmatia, and Bosnia; 29·6 ins. and less over Lapland and the Kola Peninsula; and also in a new system approaching the Bay of Biscay from the south-westward. The anticyclone over England decreasing in intensity later, and barometer falling over western and north-western Europe generally.

Monday, 27th April.

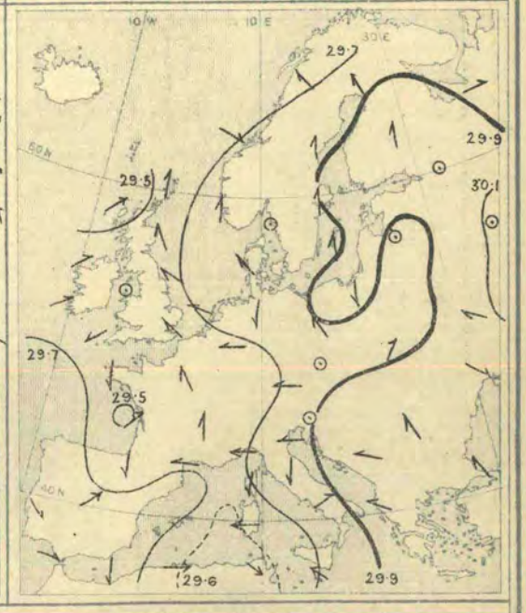
Temperature and Weather.

8 a.m.

Barometer and Wind.

8 a.m.

6 p.m.



Weather in morning fine and bright at the majority of the stations situated over northern and western Europe, as well as in Italy; cloudy and unsettled over Austria, Poland, and western Russia, over Spain and the south-west of France, and off our extreme north-west coasts; rain falling at Rochefort, Barcelona, and Cracow. Rain later at the Irish stations, over the greater part of France, and in the Straits of Dover, and also over Poland and Gallicia. Lightning in the north of France. Weather remaining dry over Great Britain as a whole.

Temperature rising a little in several parts of France, Belgium, and in Ireland, as well as over central Europe and some parts of Russia. Morning readings exceeding 60° over Algeria, at Palma, and Oporto, and exceeding 50° over southern Europe generally; below 50° in all other places, and as low as 26° at Archangel, 31° at Uleaborg, 32° at Bodö, Haparanda, and Kuopio, 34° at St. Petersburg, and 38° at Stockholm. Rising later to 50° and more over the north of France and the south of England, to 70° in the south of France and in Italy, and to 90° and more in some parts of Algeria. Night less cold over England than of late.

Wind Southerly and South-Westerly over the north-western and northern parts of our Islands and in Norway, South-Easterly on our eastern coasts, Easterly over the Netherlands, the southern parts of England, the Channel, and northern parts of France; very variable over the Continent as a whole and of little force. Subsequent changes slight and irregular, but Easterly wind in Channel dying down.

Barometer highest, 30·2 ins. to 29·9 ins. over nearly the whole of Russia, the Baltic, Germany, Austria, Italy, and south-eastern Europe. Lowest, 29·6 ins. and less off the extreme north-west of our Islands; also over the south-eastern part of the Bay of Biscay and in Algeria. A very shallow disturbance lying over Austria and Poland. Falling all over western Europe during day and the depression over the Bay of Biscay beginning to move north-eastwards, that over Algeria spreading northwards.

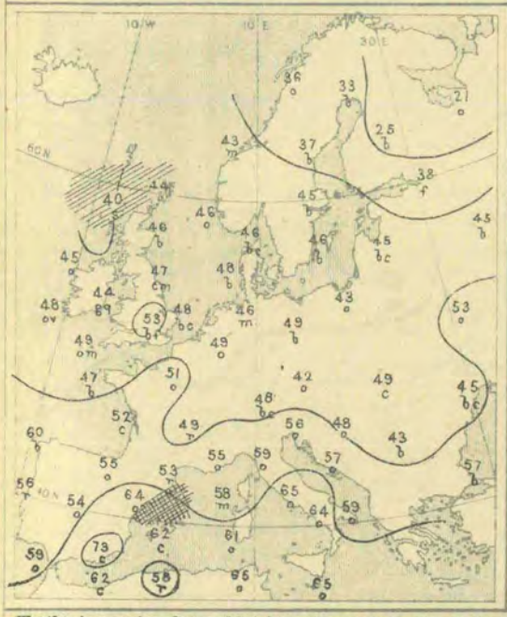
Judd & C° Lith. 73 & 75, Farringdon Rd & Doctors' Commons

III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 28th April.

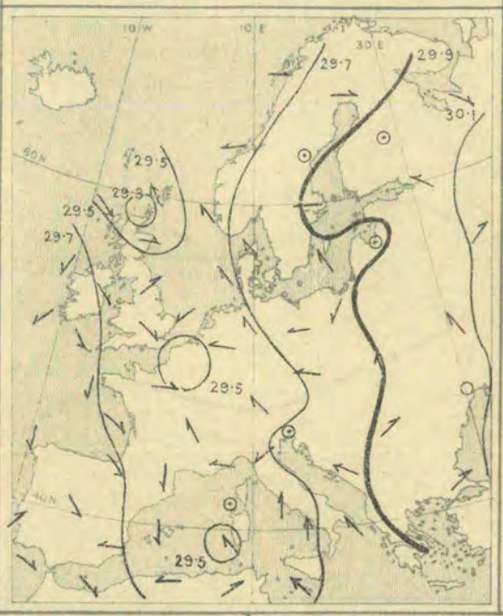
Temperature and Weather.

8 a.m.

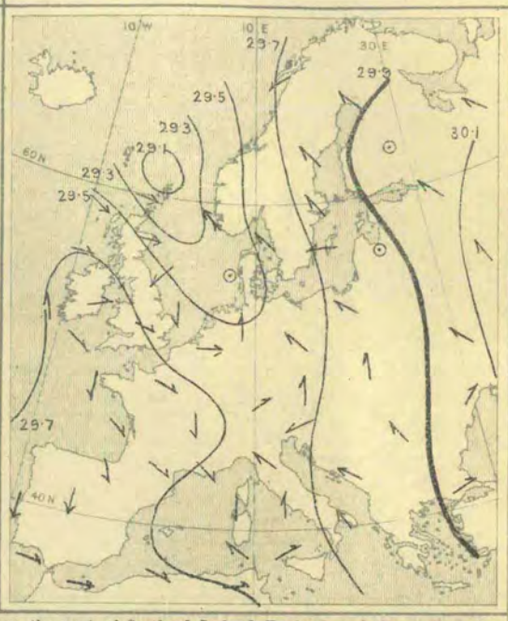


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright in the east and south of the British Islands, the north-west of France, and on the eastern shores of the North Sea, also over south-eastern Europe and central Russia. Cloudy elsewhere and unsettled. Snow in the Shetlands, rain at several of the Mediterranean and French stations, and Lisbon. Snow generally in the north of Scotland later, slight rain in Ireland, much in Norway and on the eastern shores of the North Sea. Thunder at Folkestone in afternoon; rain and thunder in Switzerland and the south-east of France.

Temperature changing irregularly; rising over France and England, falling in Scotland and south Germany. Morning readings exceeding 50° all over southern Europe and in London, and exceeding 60° at many of the western, southern, and eastern stations on the shores of the Mediterranean; much lower in the north. Lowest, 21° at Archangel, 25° at Kuopio, 33° at Haparanda, 38° at St. Petersburg, and 40° to 42° in the north of Scotland. Rising to between 60° and 64° over the south of England later, and to 68° at Brest, to between 65° and 72° over Italy, and to between 70° and 80° over Algeria. Sharp frost over Scotland at night.

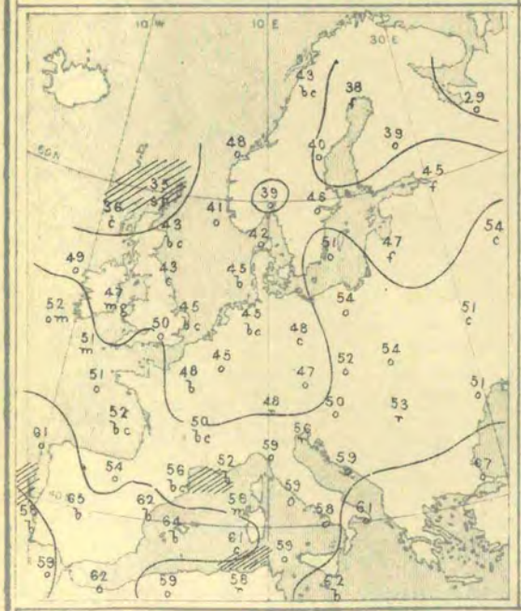
Wind mainly North-Westerly over the west of Scotland, Ireland, England, and the north and west of France. Westerly in the east of Scotland, South-Easterly on the eastern shores of the North Sea, Easterly over north-west Germany, South-Easterly at Munich, Westerly in the east of France. Another cyclonic circulation over Mediterranean. Blowing a gale from North-West in north of Scotland later, and from South-South-East at Skudesnaes, and becoming South-Easterly over Scandinavia generally; becoming very light and variable on our western coasts, and backing to South at Valencia Island.

Barometer highest, 30·2 ins. to 30·0 ins. over Russia, the Black Sea, and Asia Minor; 29·8 ins. to 29·7 ins. over Spain, the Bay of Biscay, and greater part of Ireland; lower over the whole of the British Islands, North Sea, France, western Germany, and the Mediterranean; 29·5 ins. and less in a depression over Sardinia, and in another one over Belgium and the north-east of France, and 29·2 ins. and less in a small but deep system over the Orkneys and Caithness. Latter disturbance moving north-eastwards later and growing deeper, that over Belgium advancing to the North Sea and beginning to grow deeper.

Wednesday, 29th April.

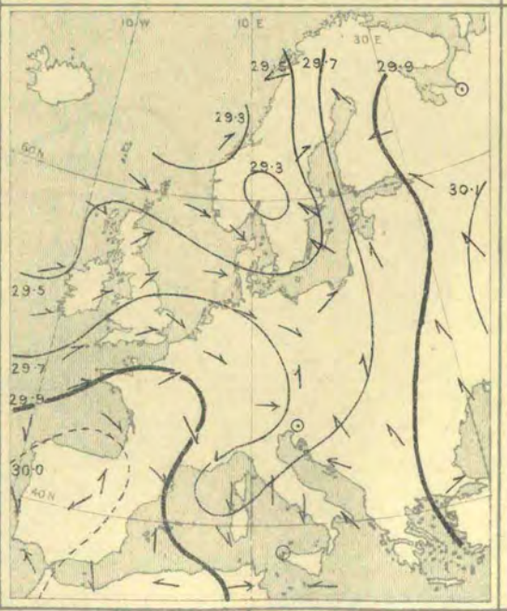
Temperature and Weather.

8 a.m.

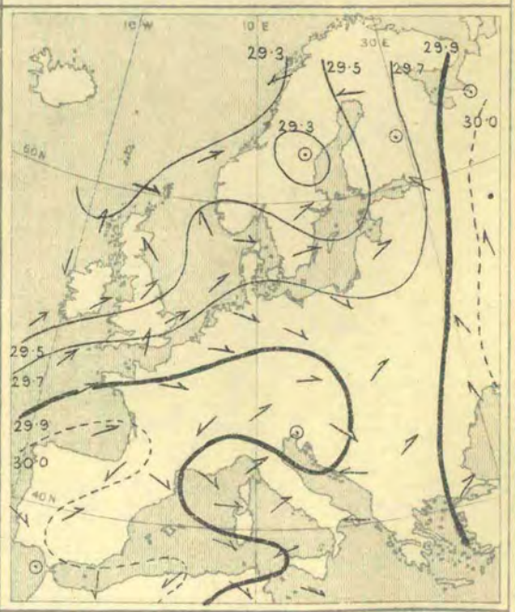


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over the Spanish Peninsula and France, and at a few stations on the shores of the North Sea and in central Russia. Cloudy and unsettled elsewhere, with rain in many localities, and fog on our south-west coasts. Some rain later over nearly the whole of our Islands, and a larger amount over Scandinavia and the eastern shores of the North Sea, as well as in some parts of Russia and Hungary; fog thick on the Welsh coast for many hours.

Temperature changing irregularly; beginning to rise decidedly over Ireland and England, still low in Scotland. Morning readings exceeding 60° at many Mediterranean and Spanish stations, and exceeding 50° in several parts of France, Austria, Germany, on the south-western coasts of the British Islands, at Wisby, and Moscow. Lowest, (1) 29° at Archangel, 38° at Haparanda, 39° at Kuopio; (2) 35° at Sumburgh Head and Wick. 36° at Stornoway, 40° at Nairn and Malin Head. Rising later to between 50° and 58° over the British Isles, to between 60° and 70° in France, and to between 68° and 75° over Italy and Algeria.

Wind very variable; mainly South-Easterly to South-Westerly over Ireland and England, but North-Westerly in the north of Scotland and the eastern shores of the North Sea; South-Easterly over the Baltic and Finland, Southerly airs prevalent over central Russia. Moderate Southerly gale at Valencia later, and wind becoming strong from South-West in English Channel. Increasing greatly from South-West over England and the Channel later, as well as in the South of Ireland.

Barometer highest, 30·0 ins. and more to 29·8 ins. over Spain, the Bay of Biscay, and France; 30·2 ins. to 29·9 ins. over Russia. Lower over Scandinavia, the Baltic, central and southern Europe, and as low as 29·3 ins. and less over the south of Sweden, 29·7 ins. and less over Poland, Austria, the north of Italy, and Corsica, and 29·5 ins. and less off our extreme north-west coasts. Falling decidedly in Ireland later as new disturbances approached that country from the westward; falling over the north of Scandinavia also.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

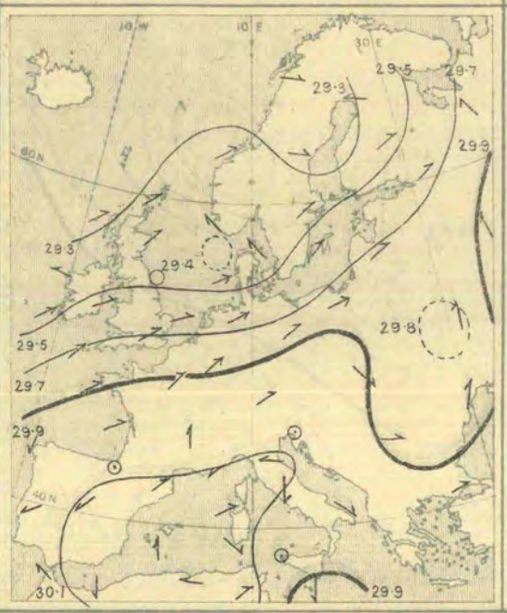
Thursday, 30th April.

Temperature and Weather.

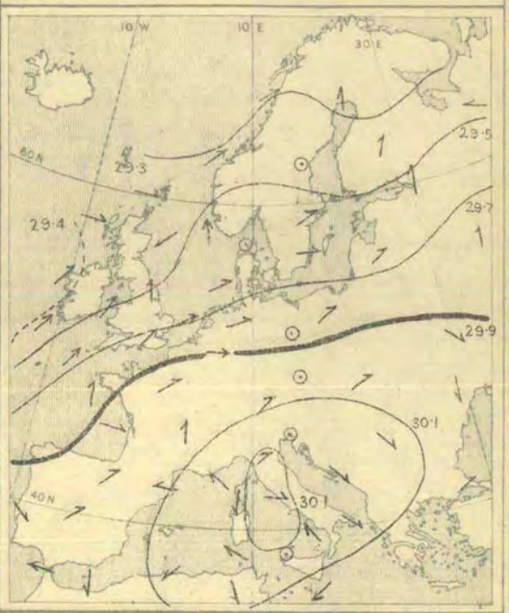
8 a.m.

Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over the greater part of Spain and the Mediterranean, as well as in the east of Scotland and west of Norway; cloudy or overcast elsewhere, with rain over Lapland, Finland, and northern Russia, as well as over north Germany and the Netherlands, and at several of the southern and western stations in the British Isles. Considerable rain over the western and northern parts of the Kingdom later, smaller quantities in some parts of Scandinavia, at many of the Baltic stations, on our north-east coasts, and in the west of France.

Temperature increasing generally over western Europe, decreasing at several central stations. Morning readings ranging from 52° to 66° over the Mediterranean and southern Europe generally, exceeding 50° in many parts of our Islands, France, and the Netherlands, as well as over central Russia. Lowest, 36° at Haparanda, 37° at Archangel, 39° at Hangö and the Scaw, 40° in the west of Norway. Rising to 70° and more in the south and south-west of France later, to between 65° and 72° over Austria, many parts of Germany, and in Italy, to 67° at Cambridge, 65° at Loughborough, 64° in London and at Paris. Succeeding night mild.

Wind very variable over southern, south-eastern, and eastern Europe, mainly South-Westerly in the west and north; blowing strongly in the English Channel and over the Netherlands and Holstein, lightly over the north-western half of the British Islands and in Norway. Increasing from the Southward on our western coasts later, and continuing strong in the English Channel.

Barometer highest, 30·1 ins. and more over Algeria, the Mediterranean, and southern Europe. Lowest, 29·3 ins. and less over the northern half of Scandinavia, and off our extreme north-west coasts, and as low as 29·5 ins. and less in a small depression off the west of Ireland and in another over Denmark, 29·8 ins. and less in a third over western Russia, and 29·9 ins. and less in a fourth lying to the southward of Malta. New disturbances approaching Ireland later; distribution of pressure over Italy and neighbouring part of Mediterranean very peculiar in evening.

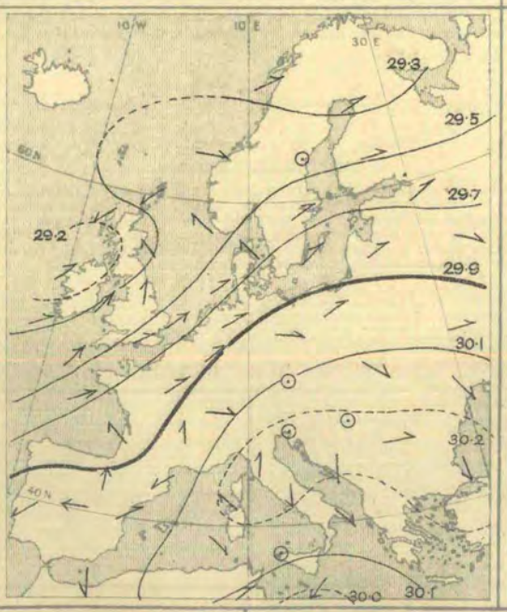
Friday, 1st May.

Temperature and Weather.

8 a.m.

Barometer and Wind.

8 a.m.



6 p.m.

Weather in morning fine and bright over the Mediterranean, south-eastern and central Europe; cloudy or overcast elsewhere, and unsettled, especially over the British Islands. Rain falling at several of the British and Irish stations, and locally on the shores of the Baltic, as well as at Ulcaborg. Snow at Haparanda. Rain during day throughout British Islands, Scandinavia, the Netherlands, north of France, and some parts of Germany and Russia—heavily in some places over north-western districts. Thunderstorms over north-east of Ireland and England, fine weather over central and southern Europe.

Temperature in morning exceeding 60° at many stations on the shores of the Mediterranean, and exceeding 70° locally in the north-east of Spain; below 50° over the northern parts of the British Islands, Scandinavia, the Baltic, and Russia, and as low as 35° at Haparanda, 36° at Archangel, 37° at St. Petersburg and Kuopio, 39° at Bodö. Rising during day to between 55° and 60° over the British Islands, and to between 70° and 80° over Germany, the southern half of France, Italy, and Algeria.

Wind light and anticyclonic over the Mediterranean, southern, and eastern Europe; mainly South-Westerly in the West and North, and blowing strongly in the English Channel; South-Easterly and Easterly over Scotland. The South-Westerly wind becoming very strong and squally in the Channel and south of England later, but North-Westerly to North-Easterly winds setting in over Ireland and the north of Scotland, and strong South-Westerly winds on Danish coast. Easterly over the southern half of Spain.

Barometer highest, 30·2 ins. and more to 30·0 ins. in a large anticyclone covering south-eastern Europe, the Mediterranean, and the southern half of the Spanish Peninsula. Lowest, 29·3 ins. and less over Lapland, 29·2 ins. and less in a depression advancing over our north-west coasts from the westward. Latter disturbance travelling across Scotland later, and barometer rising fast at the Irish stations. Fall of barometer over central Spain, where a depression appeared in evening.

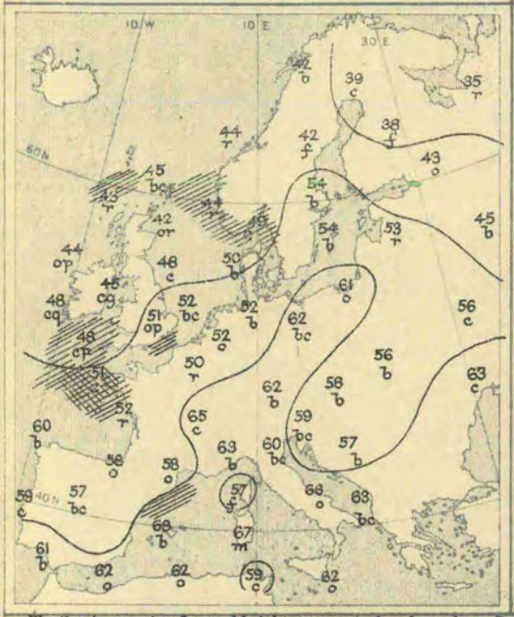
Judd & Cº Lith. 73 & 75, Farringdon Rd & Doctors Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 2nd May.

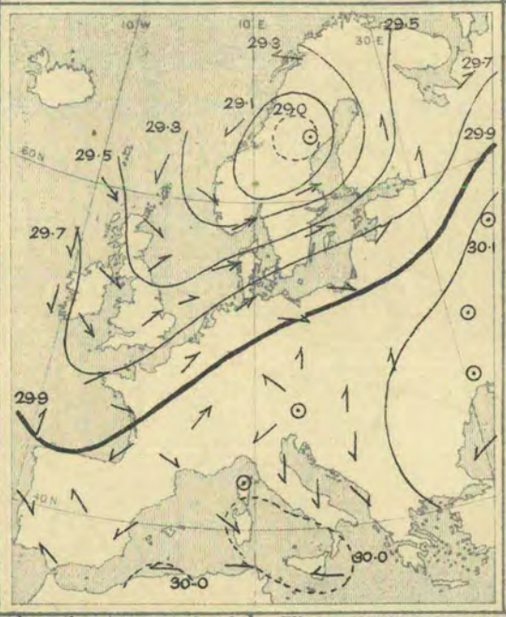
Temperature and Weather.

8 a.m.

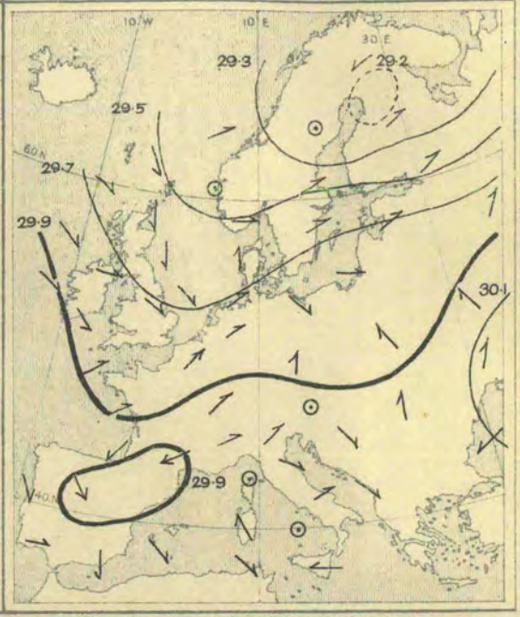


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over central and southern Russia, south-eastern, central, and southern Europe, as well as on the southern side of the Mediterranean and the south-eastern half of Spain; cloudy and unsettled elsewhere, with rain at many stations over northern and north-western Europe and the British Islands. Rain later in most parts of our Islands, France, the Netherlands, and northern Europe—heavy in some places; thunderstorms in several parts of the United Kingdom.

Temperature in morning exceeding 60° at most of the Mediterranean stations and over central Europe, and exceeding 50° all over France; lower elsewhere, below 50° over the United Kingdom and northern Europe, and as low as 35° at Arehangel, 38° at Kuopio, 39° at Haparanda, and 40° at Nairn. Rising later to 70° and more in many parts of France, Italy, Austria, and Germany, to 60° at Jersey, but not exceeding 58° in any part of our Islands, and not touching 50° at our most northern stations.

Wind very light and variable over south-eastern and southern Europe and the Mediterranean mainly South-Westerly over the more northern countries, and blowing very strongly on the eastern shores of the North Sea, freshly in the English Channel. Moderate North-Westerly breezes prevalent over Scotland, Ireland, and the west of England. The North-Westerly breeze becoming general over England later; the South-Westerly wind moderating in Denmark, but increasing to a moderate gale at some Baltic stations.

Barometer highest, 30·2 ins. to 30·0 ins. over all parts of south-eastern Europe, as well as the Mediterranean and southern half of Spain. Lowest, 29·0 ins. and less in the depression over Scandinavia, and 29·5 ins. to 29·7 ins. in a "V"-shaped secondary spreading in a south-westerly direction across England. Latter system moving south-eastwards later, while the primary advanced to Finland and began to fill up.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The weather experienced during this week has been essentially different from that recorded for a long time past. Pressure was, on the whole, highest over Russia and central Europe during the earlier part of the week, lowest over northern Europe and the Atlantic. The prevailing winds, though variable, were mainly South-Westerly, temperature became much higher than during the preceding few weeks, and in most places a good deal of rain fell. On Wednesday a second high-pressure system appeared over the Spanish Peninsula, and, spreading eastwards, united with the one previously existing over Russia, so that by towards the close of the week readings were highest over the Mediterranean, south-eastern and eastern Europe, lowest in the extreme north-west; a depression, was in the meantime, moving in an east-north-easterly direction, from the northern parts of Ireland and Scotland, across Scandinavia and Finland, towards the White Sea.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 98.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	23·4	?	22	?	EASTBOURNE	32·2	?	32	?
OSWALDKIRK (Yorkshire)	32·1	?	31	?	TORQUAY	29·0*	?	29*	?
WORKSOP	31·4	− 2·8	30	− 3	ARLEY COTTAGE (County Cavan)	26·2	?	25	?
THURCASTON (Leicestershire)	31·2	− 0·8	30	− 2					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

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VOL. VIII. No. 18.] *Third Series.* WEEK ENDING SATURDAY, 9TH MAY, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 104.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	66	28	54·3	39·5	46·4	0 (average)	41	+ 6	7	− 3	248	+42	585	+ 62
	1. SCOTLAND, EAST -	63	30	53·7	38·7	45·8	1 below.	40	− 5	9	0	268	−28	635	+ 78
	2. ENGLAND, N.E. - -	65	32	52·6	39·9	45·9	1 below.	36	− 7	6	+ 2	237	−39	574	+ 82
	3. ENGLAND, EAST -	67	33	57·5	39·3	47·9	1 below.	53	− 2	8	+ 2	333	−31	675	+123
	4. MIDLAND COUNTIES	66	30	53·5	40·3	49·3	0 (average)	58	− 3	5	− 1	366	−23	646	+105
	5. ENGLAND, SOUTH -	69	31	58·8	42·3	50·1	0 (average)	57	− 4	0	− 3	361	−58	557	+144
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	64	30	56·2	41·0	48·1	0 (average)	46	− 2	3	− 2	321	+19	443	+ 34
	7. ENGLAND, N.W. -	64	31	56·1	42·6	48·9	0 (average)	48	− 3	0	− 4	320	+10	438	+ 27
	8. ENGLAND, S.W. -	67	32	57·3	41·4	48·9	1 below.	51	− 4	2	+ 1	390	−30	421	+107
	9. IRELAND, NORTH -	66	34	55·4	42·3	48·5	1 below.	46	− 5	0	− 4	388	+ 3	377	+ 20
	10. IRELAND, SOUTH -	65	34	56·3	42·5	49·0	1 below.	49	− 7	0	− 3	506	+14	296	+ 21
	— CHANNEL ISLANDS -	61	41	56·8	45·0	50·5	1 below.	60	− 1	0	0	494	− 9	162	+ 40

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 104.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	3	2	4 less.	81	− 5	16·4	− 0·1	35	− 1	32	− 1	385	+ 29	28	+ 2
	1. SCOTLAND, EAST -	3	2	2 less.	50	−18	6·6	− 3·5	29	− 3	27	− 2	423	+ 27	30	+ 1
	2. ENGLAND, N.E. - -	2	2	2 less.	58	− 7	5·3	− 2·5	29	−10	27	− 7	389	+ 41	28	+ 3
	3. ENGLAND, EAST -	2	1	3 less.	57	− 7	4·7	− 2·3	45	+ 3	43	+ 1	440	+ 20	31	+ 1
	4. MIDLAND COUNTIES-	3	3	2 less.	51	−10	5·7	− 3·1	33	− 6	32	− 5	407	+ 34	29	+ 2
	5. ENGLAND, SOUTH -	2	1	3 less.	49	−12	6·4	− 2·5	43	− 1	42	− 2	448	+ 54	31	+ 4
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	3	5	1 less.	59	−14	11·0	− 5·8	31	−12	29	−11	425	+ 48	30	+ 3
	7. ENGLAND, N.W. - -	3	3	2 less.	48	−19	6·1	− 4·2	28	−13	26	−13	397	+ 30	28	+ 1
	8. ENGLAND, S.W. - -	3	7	1 more.	50	−19	8·7	− 4·5	39	− 7	38	− 7	507	+ 55	36	+ 4
	9. IRELAND, NORTH -	4	8	3 more.	64*	−12	7·7	− 3·6	30	−10	28	− 9	429	+ 52	31	+ 4
	10. IRELAND, SOUTH -	4		1 more.	57	−15	7·4	− 6·2	28	−16	27	−15	473	+ 26	33	+ 1
	— CHANNEL ISLANDS -	3	7	2 more.	56	−19	7·5	− 3·5	49	− 3	48	− 3	646	+113	45	+ 7

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather during this period varied considerably. At times it was clear and bright, at others overcast and gloomy, and on several occasions rain fell. Over the greater part of England and Scotland the rainfall was very slight, but in Ireland and the south-west of England it was heavier and more frequent.

Temperature has not differed materially from the mean for the time of year. It was generally highest during the 6th and 7th, when maxima were registered ranging from 61° in the "Channel Islands" and 63° in "Scotland E." to 69° in "England S." The lowest of the minima were recorded during the early morning either of the 3rd or 6th, and varied from 28° in "Scotland N." and 30° in the other Scotch districts and over central England, to 34° over Ireland and to 41° in the "Channel Islands."

Rainfall has been in excess of the mean over Ireland, the south-west of England, and in the "Channel Islands," but below the mean in all other districts.

Bright Sunshine has not differed much from that recorded last week, and has been below the mean for the time of year. The percentage of the possible duration ranged from 48 in the "Channel Islands" and 42 to 43 in the south and east of England, to 27 in "England N.E." and "E." and to 26 in "England N.W."

Barometer and Wind.—During the earlier part of the period an anticyclone moved north-eastwards over England to Scandinavia, and the wind, which was at first Westerly, consequently shifted to the Eastward or South-Eastward. As this system travelled away depressions began to appear off our western coasts, and by the 8th a complex system (having two distinct minima) had advanced over our western districts. By the end of the week this system had moved away to the south-eastward, the barometer was rising steadily, and the wind was shifting very generally to the North-Eastward and Eastward.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 103 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	54	35	49·3	39·0	43·8	− 0·1	25	8	1	0·02	−0·40	*	*	*	*
	Stornoway ⚓	58	32	52·6	38·1	44·9	− 1·4	37	11	4	0·16	−0·43	41·4	− 0·6	37	− 1
	Wick ⚓	58	35	52·1	40·1	45·7	+ 0·2	34	5	2	0·21	−0·18	*	*	*	*
	Lairg ⚓	62	28	55·6	37·9	46·2	+ 0·5	47	11	3	0·32	−0·18	*	*	*	*
	Glencarron ⚓	64	32	57·0	38·6	47·3	+ 1·7	51	10	2	0·12	−0·86	*	*	*	*
	Fort Augustus ⚓	62	32	56·5	41·2	48·4	+ 1·7	48	2	2	0·22	−0·26	28·2	?	26	?
	Fort William ⚓	66	35	57·1	41·5	48·8	+ 0·5	50	1	4	0·04	−0·74	35·7	?	33	?
1. SCOTLAND, E.	Nairn ⚓	61	32	56·6	40·1	47·9	+ 0·2	49	5	3	0·04	−0·29	*	*	*	*
	Aberdeen ⚓	54	30	50·1	40·1	44·8	− 1·9	28	5	3	0·50	+0·01	36·6	− 3·4	34	− 2
	Braemar ⚓	56	30	50·9	36·3	43·2	− 1·1	32	16	2	0·04	−0·48	30·0†	?†	28†	?†
	Ochtertyre ⚓	63	33	57·6	38·4	47·4	+ 0·6	53	10	3	0·15	−0·41	*	*	*	*
	Leith ⚓	59	36	54·1	38·9	46·0	− 2·2	41	9	4	0·24	−0·15	*	*	*	*
	Marchmont ⚓	60	33	52·7	38·6	45·2	− 0·6	37	10	2	0·42	−0·13	25·5	?	24	?
2. ENGLAND, N.E.	Alnwick Castle ⚓	52	39	49·4	40·9	44·9	− 0·9	25	3	1	0·14	−0·36	*	*	*	*
	Durham ⚓	61	32	55·2	37·5	45·8	− 1·3	46	13	3	0·13	−0·36	27·8	− 7·4	26	− 8
	Shields ⚓	53	36	49·6	38·4	43·7	− 3·1	27	10	2	0·10	−0·30	*	*	*	*
	Scarborough ⚓	56	36	51·7	40·1	45·6	− 2·1	33	5	3	0·18	−0·27	*	*	*	*
	York ⚓	65	35	58·3	39·3	48·2	− 0·5	55	8	3	0·07	−0·35	30·1	− 9·7	28	− 8
	Spurn Head ⚓	54	41	51·6	43·0	47·0	− 0·7	35	0	1	0·71	+0·36	*	*	*	*
3. ENGLAND, E.	Hillington ⚓	63	36	58·6	39·4	48·4	− 0·7	56	7	2	0·14	−0·28	54·4	+ 9·4	51	+ 7
	Yarmouth ⚓	55	35	51·9	41·1	46·2	− 1·8	33	3	1	0·06	−0·35	*	*	*	*
	Geldeston ⚓	64	34	57·3	38·1	47·1	− 1·6	52	11	1	0·07	−0·32	50·3	+ 3·0	48	+ 1
	Cambridge ⚓	67	33	61·6	38·3	49·3	− 0·4	67	10	2	0·18	−0·23	35·8	− 6·0	34	− 6
	Rothamsted ⚓	63	34	58·2	39·7	48·4	0·0	54	6	2	0·17	−0·33	39·3	?	37	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall) ⚓	66	30	59·6	39·3	48·8	− 0·5	59	8	2	0·49	+0·07	*	*	*	*
	Loughborough ⚓	66	34	61·7	41·4	50·9	+ 0·6	65	2	2	0·14	−0·31	*	*	*	*
	Stamford (Ketton Hall) ⚓	65	32	59·7	39·4	48·9	− 1·5	59	7	3	0·14	?	*	*	*	*
	Cheadle ⚓	62	36	57·2	40·7	48·5	+ 0·8	51	4	3	0·31	−0·20	*	*	*	*
	Churchstoke ⚓	63	35	57·9	39·5	48·2	+ 0·8	54	7	3	0·39	−0·08	28·3	−10·7	27	−11
	Hereford ⚓	66	35	61·0	40·9	50·4	+ 1·0	63	3	3	0·21	−0·24	*	*	*	*
	Cirencester ⚓	63	33	59·7	39·1	48·8	+ 0·2	60	8	2	0·22	−0·28	43·9	+ 2·1	42	+ 2
	Oxford ⚓	66	35	59·1	41·7	49·9	+ 0·2	57	1	2	0·20	−0·25	35·1	− 5·9	33	− 5
5. ENGLAND, S.	London ⚓	66	36	60·9	43·3	51·6	+ 0·3	67	0	2	0·05	−0·39	36·3†	− 1·7†	35†	− 2†
	Strathfield Turgiss ⚓	69	32	61·5	39·2	49·7	− 0·7	66	8	3	0·11	−0·31	*	*	*	*
	Dungeness ⚓	59	36	55·1	43·7	49·1	− 1·2	50	0	2	0·22	−0·20	*	*	*	*
	Hastings (St. Leonards) ⚓	62	39	57·5	43·8	50·2	− 0·3	57	0	2	0·13	−0·34	43·3	− 4·9	42	− 5
	Southampton ⚓	67	37	61·8	43·5	52·2	+ 0·8	71	0	2	0·10	−0·41	49·8	+ 5·0	48	+ 5
	Hurst Castle ⚓	61	38	57·3	44·0	50·3	+ 0·3	58	0	1	0·09	−0·33	*	*	*	*
	Stowell ⚓	63	31	57·7	38·3	47·6	− 1·6	55	10	2	0·16	?	41·0†	?†	39†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart) ⚓	64	36	58·0	41·9	49·5	+ 0·8	53	0	2	0·26	−0·62	*	*	*	*
	Glasgow ⚓	60	36	55·5	41·7	48·2	+ 0·3	45	1	5	0·50	−0·02	25·5	−10·3	24	− 8
	Ardrossan ⚓	61	35	55·6	41·3	48·0	− 1·1	45	2	2	0·34	−0·18	*	*	*	*
	Glenlee ⚓	63	30	56·9	39·5	47·7	+ 0·5	50	7	5	0·91	+0·26	*	*	*	*
	Douglas (Isle of Man) ⚓	59	34	54·8	40·7	47·3	− 0·4	43	4	3	0·56	+0·06	36·6	−11·8	34	−13
7. ENGLAND, N.W.	Newton Reigny ⚓	64	31	56·2	40·1	47·7	+ 1·3	48	5	3	0·13	−0·32	18·6	−23·9	17	−22
	Stonyhurst ⚓	62	39	55·5	42·5	48·6	− 0·2	46	0	2	0·36	−0·21	33·0	− 7·8	31	− 7
	Blackpool ⚓	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Manchester ⚓	64	37	56·9	42·5	49·3	+ 0·9	51	0	3	0·22	−0·29	*	*	*	*
	Liverpool Obsy. (Bidston) ⚓	64	41	57·6	44·0	50·4	+ 0·1	59	0	3	0·37	−0·03	*	*	*	*
	Llandudno ⚓	60	40	55·5	42·9	48·8	− 1·0	48	0	4	0·25	−0·15	31·3	−10·2	30	−10
	Holyhead ⚓	58	40	54·9	43·4	48·8	− 1·0	48	0	4	0·38	−0·04	*	*	*	*
8. ENGLAND, S.W.	Llandovery ⚓	64	35	60·0	39·9	49·7	+ 1·3	63	6	4	0·36	−0·28	*	*	*	*
	Pembroke ⚓	56	42	52·1	44·1	47·9	− 1·3	41	0	4	0·90	+0·45	46·3	− 1·5	44	− 2
	Arlington (N. Devon) ⚓	61	34	58·0	38·9	47·9	− 0·2	54	9	2	0·65	−0·02	*	*	*	*
	Cullompton ⚓	64	32	59·1	38·2	48·0	− 1·5	58	11	3	0·77	+0·26	45·6	+ 5·6	44	+ 5
	Falmouth ⚓	61	41	56·6	43·6	49·7	− 0·7	54	0	3	0·69	+0·04	27·1	−19·5	26	−19
	Plymouth ⚓	67	37	60·0	41·9	50·4	− 1·6	59	0	2	0·97	+0·47	32·3	−12·7	31	−13
	Prawle Point ⚓	64	40	55·1	43·3	48·9	− 0·5	48	0	2	0·35	−0·03	*	*		*
9. IRELAND, N.	Malin Head ⚓	56	40	52·7	43·6	47·9	− 1·4	41	0	4	1·04	?	*	*	*	*
	Londonderry ⚓	66	39	58·3	42·7	50·0	+ 0·3	56	0	4	0·97	+0·45	*	*	*	*
	Mullaghmore ⚓	59	41	55·0	44·3	49·3	− 0·4	51	0	5	0·85	+0·35	*	*	*	*
	Belmullet ⚓	55	39	53·9	44·0	48·7	− 2·0	47	0	5	0·56	?	*	*	*	*
	Markree Castle ⚓	63	38	56·8	40·5	48·2	− 0·1	50	4	5	0·63	+0·13	30·6	−11·9	29	−10
	Brookeborough ⚓	62	35	55·2	40·5	47·4	− 0·2	44	4	5	0·88	+0·30	*	*	*	*
	Armagh ⚓	61	37	56·4	42·2	48·9	+ 0·5	48	0	3	0·73	+0·25	31·0	− 9·0	29	− 9
	Donaghadee ⚓	56	40	53·7	43·6	48·4	− 0·3	45	0	3	0·95	+0·46	*	*	*	*
	Edgeworthstown ⚓	62	34	56·8	39·0	47·4	− 0·3	50	8	3	0·98	+0·43	*	*	*	*
10. IRELAND, S.	Dublin ⚓	61	38	57·7	43·4	50·1	+ 0·2	57	0	4	0·47	+0·02	24·2	−21·8	23	−21
	Parsonstown ⚓	60	36	57·9	40·7	48·8	− 0·3	53	4	3	0·75	+0·25	19·3	−20·7	18	−12
	Kilkenny ⚓	58	34	55·7	40·9	47·9	− 1·3	46	3	4	0·82	+0·35	*	*	*	*
	Waterford ⚓	60	34	56·0	41·0	48·1	− 2·3	47	3	4	0·92	+0·37	*	*	*	*
	Roche's Point ⚓	62	39	54·6	44·4	49·2	− 1·7	50	0	4	0·88	+0·16	*	*	*	*
	Valencia ⚓	62	39	55·3	44·6	49·6	− 1·3	53	0	3	0·80	0·00	40·5	− 5·5	39	− 5
	Killarney ⚓	63	36	56·1	41·2	48·2	− 2·0	47	2	4	0·55	?	*	*	*	*
	Foynes ⚓	65	39	56·9	43·7	49·9	− 0·4	55	0	3	0·31	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's) ⚓	57	42	55·1	46·6	50·6	− 0·6	60	0	3	0·83	+0·34	*	*	*	*
	Jersey ⚓	61	41	58·4	43·3	50·4	− 1·7	59	0	2	0·53	+0·09	49·4	− 2·6	46	− 3

Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

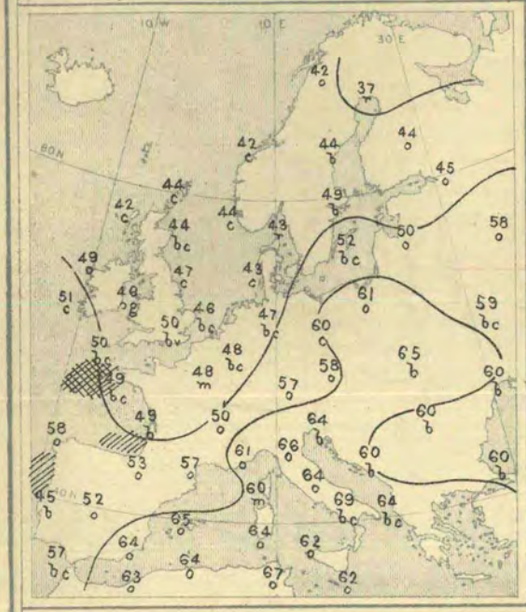
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

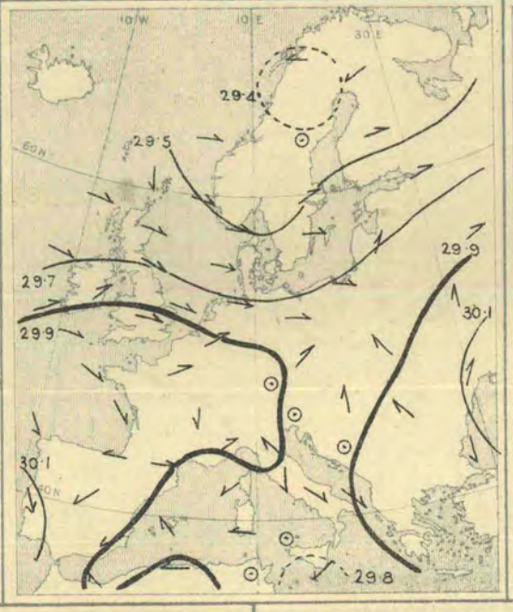
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 3rd May.

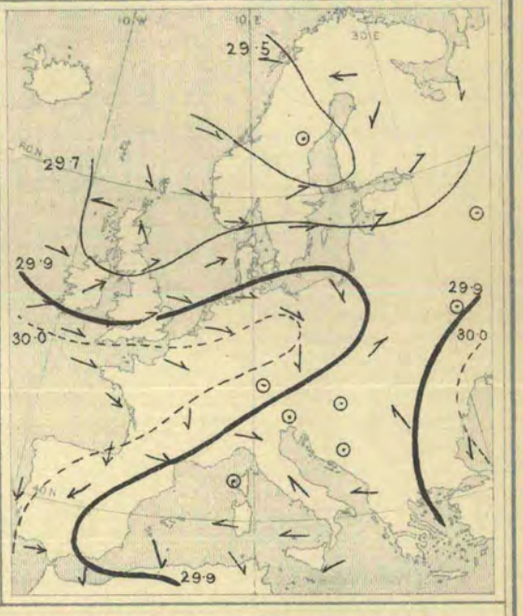
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over Algeria, the south and west of Spain, many parts of France and the southern counties of England, and in Sweden; also over south-eastern Europe and the Black Sea. Cloudy or overcast elsewhere; rainy in the north-west of Ireland, at the Scaw, and at Haparanda. Some rain later over the western and northern parts of our Islands and northern Europe, larger quantities over the south and south-east of France and north Germany.

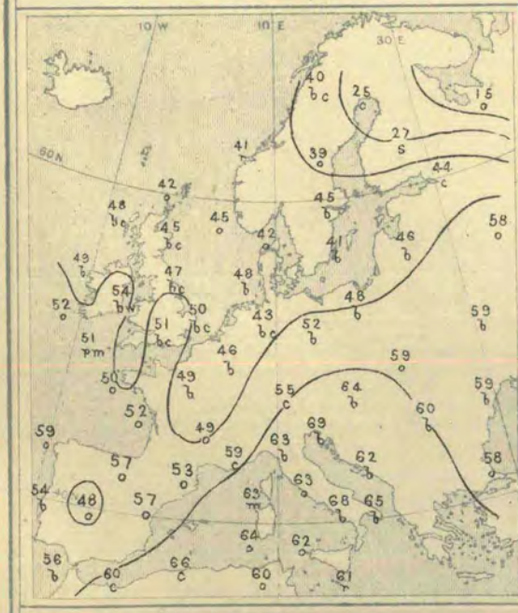
Temperature exceeding 60° over central and south-eastern Europe and at the Mediterranean stations, below 50° over the greater part of the United Kingdom and north-western Europe, and as low as 37° at Haparanda and Uleaborg, 41° at Hangö, 42° at Bodö, 43° at Faerder, the Scaw, and Fanö. Not touching 60° at any of our stations during day, but rising to between 60° and 70° over Germany, to between 70° and 86° over Austria and Italy, but not quite so high over Algeria.

Wind moderate from between South-West and North-West over the whole of the United Kingdom, strong Westerly over Holstein, moderate South-Westerly to Southerly over the Baltic, Easterly over Lapland. Very variable over south-western, southern, and central Europe, light Southerly over Russia. Light Easterly breeze at Stornoway later, and variable airs over Scotland; becoming strong from the Eastward over the northern parts of the Gulf of Bothnia.

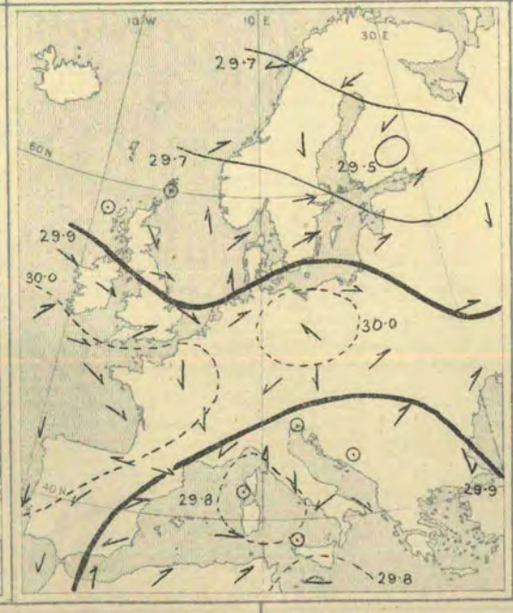
Barometer highest, 30·0 ins. and more to 29·9 ins. over the Bay of Biscay, France, Spain, and the south of England; 30·1 ins. and more to 29·9 ins. over southern Russia, the Black Sea, and south-eastern Europe. Lowest, 29·5 ins. to 29·4 ins. and less over Scandinavia and Finland, and 29·9 ins. to 29·8 ins. and less in a "hollow" over Germany, Poland, and Austria. Shallow secondary disturbance forming over Scotland later; barometer, nevertheless, rising at the northern and north-western stations generally, but inclined to fall over southern Russia.

Monday, 4th May.

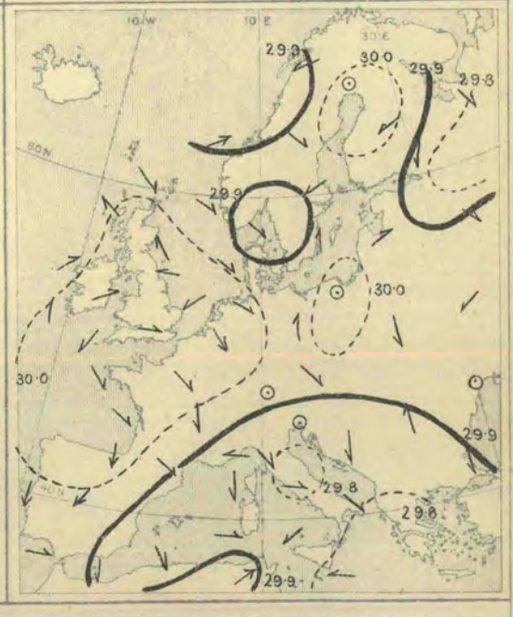
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the Mediterranean and many parts of south-eastern Europe, as well as over the Baltic Provinces, north Germany, and the Netherlands; fair over the British Islands and France; cloudy and unsettled over the northern half of Russia. Rain later over several parts of Scandinavia, in the south of France, and in Austria; slight showers at Scilly, Valencia Island, and a few isolated stations in northern Europe.

Temperature lower over southern, central, and northern Europe than of late; morning readings exceeding 60° over Algeria, Italy, and south-eastern Europe; lower elsewhere. Below 50° in many parts of the United Kingdom, Scandinavia, and the Baltic, and as low as 15° at Archangel, 25° at Haparanda and Uleaborg, 27° at Kuopio, 39° at Hernösand and Hangö. Rising during day to between 48° and 59° over the United Kingdom to 68° over Germany and to 70° at Nice; still higher over Algeria and Italy, but highest of all (80° to 84°) over Austria.

Wind light from between West and North-West over the British Isles, from North in France, and from North-East in Spain; very variable elsewhere—cyclonic over northern and southern Europe, anticyclonic over Germany, Austria, and southern Russia. Backing to the Southward and South-Eastward later in the west of our Islands and to Eastward on our eastern coasts, but remaining very light.

Barometer highest, 30·0 ins. and more to 29·9 ins. in a broad band of high pressure extending from the Atlantic across western and central Europe to southern Russia, the Black Sea, and Asia Minor. The band containing three maxima—one over the Atlantic, another over the south of Russia and the Crimea, and the third over north Germany. The Atlantic maximum moving north-eastwards later, and increasing in intensity, but barometer showing some tendency to fall in the west of Ireland.

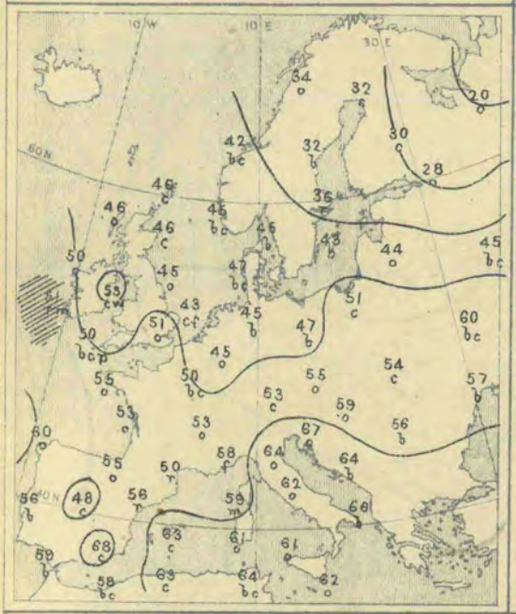
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 5th May.

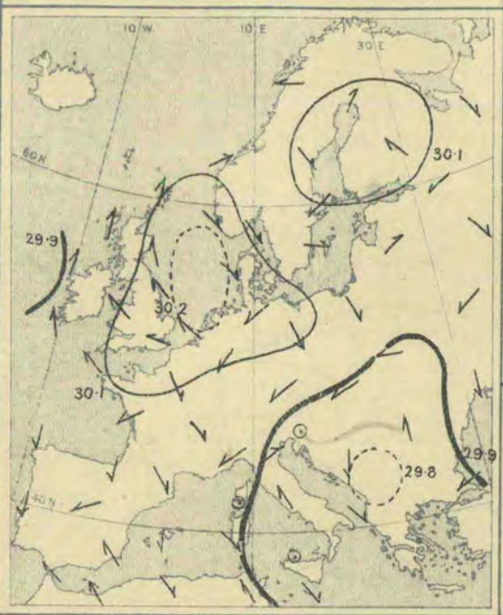
Temperature and Weather.

8 a.m.



Barometer and Wind.

8 a.m.



6 p.m.

Weather in morning fine and bright over south-eastern Europe and south of Russia, and at many stations over Scandinavia, Denmark, and the north-east of our Islands; cloudy or overcast in the western parts of the United Kingdom and France, and the northern half of Spain; rain at Barcelona, Perpignan, Scilly, and Valencia Island, fog and haze in the south and east of England. Rain later in considerable quantity in the south and south-east of France, the north-east of Spain, Belgium, Ireland, and Norway, but weather fine and dry over England.

Temperature fallen over Russia, Germany, the Baltic, and east of England. Morning readings exceeding 60° on the southern and eastern shores of the Mediterranean and Adriatic, and at Buda-Pesth. Highest of all, 67° at Trieste, 66° at Brindisi. Lower elsewhere; below 40° in Lapland and Sweden, and as low as 20° at Archangel, 28° at St. Petersburg, 30° at Kuopio, 32° at Haparanda and Hernösand. Rising later to between 55° and 61° over England, to higher values over France and Germany, 70° at Wiesbaden, and to between 75° and 82° over the southern parts of Austria.

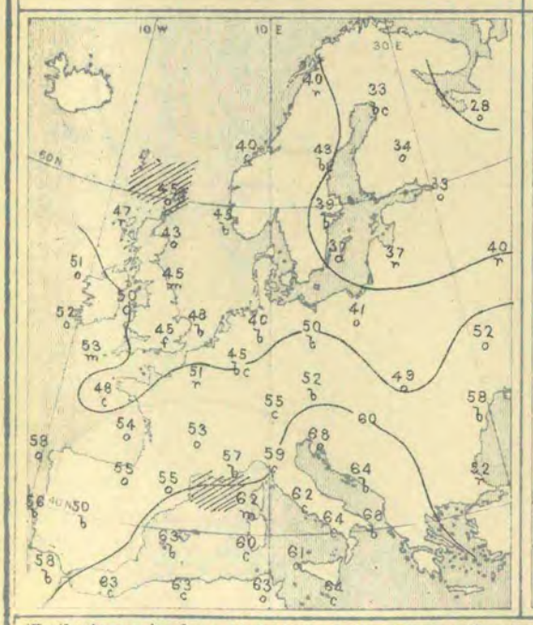
Wind moderate to fresh from South over the western and northern parts of the British Isles, South-Westerly at Christiansund, North-Westerly on the eastern shores of the North Sea, Northerly over Germany, North-Easterly over the greater part of France and Spain; very variable over the Mediterranean, south-eastern and eastern Europe. Blowing strongly from South at some of our western stations later; not much change elsewhere.

Barometer highest, 30·2 ins. to 30·0 ins. in a large and complex high-pressure area, covering the whole of northern, north-western, and western Europe; highest of all, 30·2 ins. and more over the North Sea. Lowest, about 29·8 ins. in a depression lying over Servia, Bosnia, and Herzgovinia, and apparently below 29·9 ins. off the extreme west of Ireland. Falling slightly at our western stations later and in France, rising over Sweden and Norway.

Wednesday, 6th May.

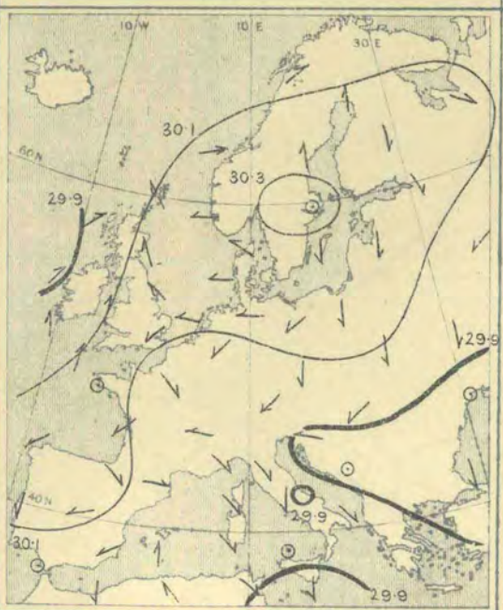
Temperature and Weather.

8 a.m.



Barometer and Wind.

8 a.m.



6 p.m.

Weather in morning fine and bright over the greater part of Scandinavia, the eastern shores of the North Sea, and England, also over south-eastern and central Europe and the south of Russia; cloudy or overcast elsewhere, with rain in many districts, more particularly in the west and north of our Islands, the north-east of France, and west of Germany. Rainfall considerable in the latter region during the day and, locally, at Leghorn and Cagliari; slight but general rain in the west of our Islands and some at Moscow.

Temperature fallen at the English stations and over central and eastern Europe, risen a little over Ireland; morning readings exceeding 60° at most of the Mediterranean stations, lower elsewhere; below 50° over the greater part of the United Kingdom, below 40° over the northern half of Russia, and as low as 28° at Archangel, 33° at Haparanda and St. Petersburg, 35° at Hangö, 37° at Riga. Rising quickly during day to between 66° and 67° over England and the northern half of France, to 68° at Wiesbaden and Lisbon, to between 70° and 75° in the south of France and over Italy. Falling quickly over England at night.

Wind moderate to fresh from the Southward on our western and northern coasts, light to fresh from South-West in the north of Norway; mainly Easterly to North-Easterly over Germany, the north of France, and the south-eastern half of England; North-Westerly in the south of France. Veering to South-West and West in Ireland later and falling light, but blowing strongly from South over Caithness all day, and moderately from North in the south of France.

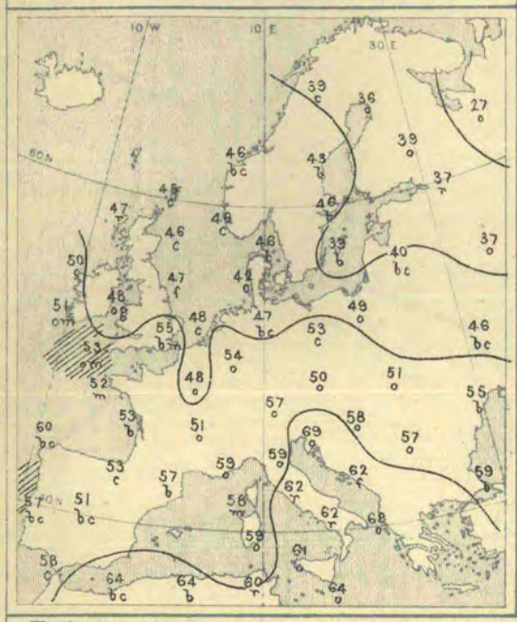
Barometer highest, 30·3 ins. to 30·2 ins. in an anticyclone lying over Scandinavia, Denmark, and the Baltic, and exceeding 30·1 ins. over the Bay of Biscay and northern half of Spain. Lowest, 29·9 ins. and less off our extreme north-west coasts, and also over the Black Sea and the whole of south-eastern Europe; rather below 30·0 ins. over the east of France and the greater part of the Mediterranean. Falling later over the Adriatic, Italy, and Germany, and slightly over the east and south-east of England and in the Netherlands; changing little and irregularly elsewhere.

Judd & Cº Lith. 73 & 75, Farringdon Rd & Doc ors Commons

III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 7th May.

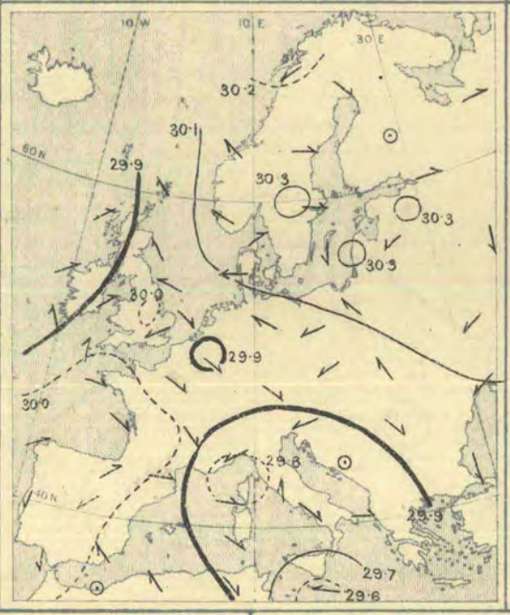
Temperature and Weather. 8 a.m.



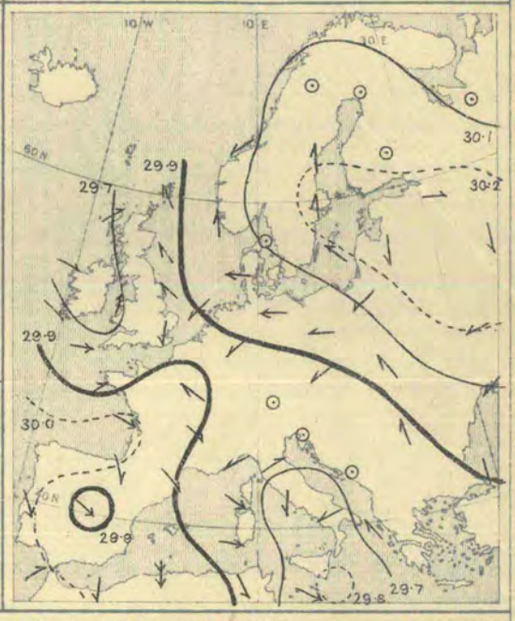
Weather in morning fine and bright over the southern parts of Russia, a great deal of Scandinavia, and, locally, over the south-eastern counties of England; fine also over the greater part of Spain and the west of France; cloudy more or less elsewhere, unsettled over the Mediterranean and north-western half of our Islands, with rain in several places, snow at Helsingfors. Considerable rainfall later over the United Kingdom (excepting the south-eastern counties), Brittany, and the south of France, and smaller quantities in many parts of Italy, Austria, and south Germany, as well as in some parts of Finland.

Temperature in morning exceeding 60° on the southern and eastern sides of the Mediterranean only; below 50° over the greater part of north-western and the northern parts of central Europe (excepting western Germany), and below 40° at most stations in Lapland, Finland, and northern Russia. As low as 27° at Archangel, 36° at Haparanda, 37° at St. Petersburg and Moscow, and 39° at Wisby and Bodö. Rising later to between 60° and 67° over many parts of Great Britain and the northern half of France, to 70° and more over Hungary, Italy, and the south of France, to 80° and more at Cette and Cape Bearn.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

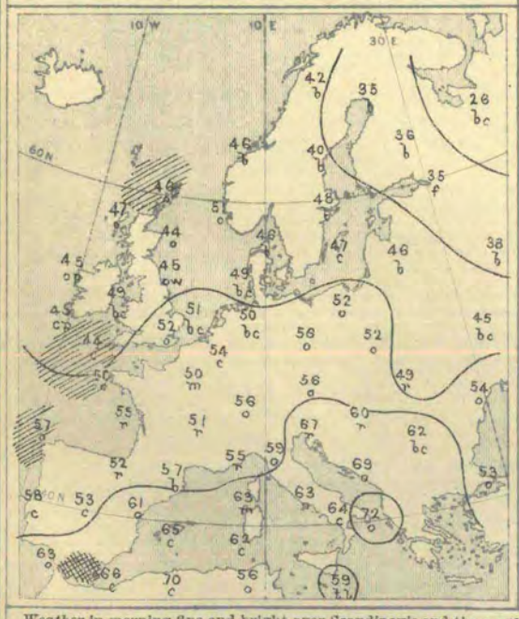


Wind very variable; Southerly (South-South-West to South-South-East) in the west and north of the British Islands, South-Easterly in Norway, Easterly over Germany and Denmark, Northerly over our eastern counties. Too variable elsewhere for direction to be quoted. Shifting to the Northward and North-Westward in Ireland later and to South-West over Brittany; no decided alteration elsewhere, except over the western parts of the Mediterranean, where strong North-Westerly to Westerly breezes set in.

Barometer highest, 30·3 ins. to 30·0 ins. all over Russia, Lapland, the Baltic, and eastern parts of the North Sea, and exceeding 30·0 ins. over Spain and the western parts of France. Lowest, 29·8 ins. and less in a depression over Corsica and the Gulf of Genoa, 29·9 ins. and less off our extreme north-western coasts; gradients slight. Falling steadily in most places later, and new complex depression forming over the north-western parts of the British Islands.

Friday, 8th May.

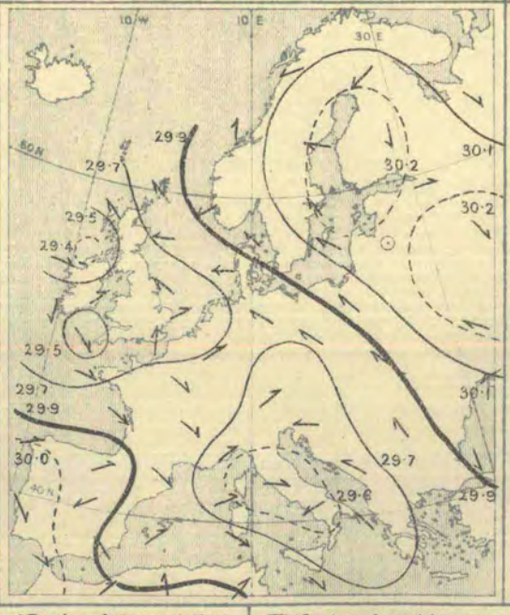
Temperature and Weather. 8 a.m.



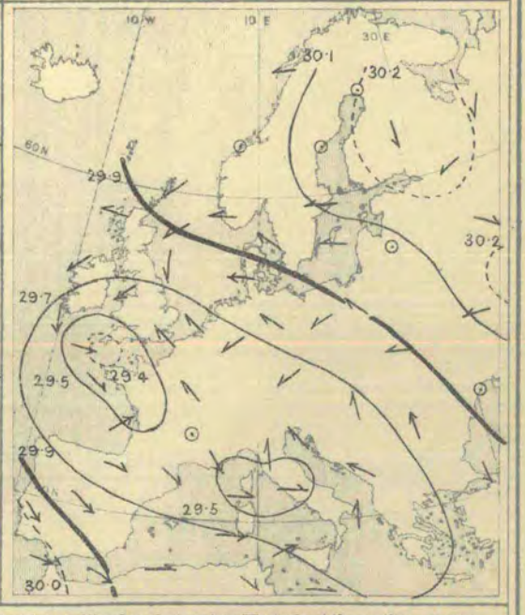
Weather in morning fine and bright over Scandinavia and the north of Russia, and at some stations in the south-east of England; cloudy and very unsettled, as a whole, elsewhere. Rain falling in many parts of the United Kingdom, France, and western Germany, as well as at Lemberg; thunderstorm prevalent at Malta. Considerable rain falling later in some parts of Scotland, the south-west of our Islands, and many parts of France, and western and northern Germany. Thick fog on our north-eastern coasts.

Temperature changing somewhat irregularly. Morning readings exceeding 60° at several of the Mediterranean stations and over south-eastern Europe (72° at Brindisi, 70° at Algiers), but below 50° at many of our own stations, and still lower over northern and central Russia. Lowest of all, 26° at Archangel, 35° at St. Petersburg and Haparanda, 36° at Knopio, 38° at Moscow. Rising during day to rather above 60° in several parts of England, France, and Germany, and to 70° over many portions of the southern departments, as well as over Austria, Italy, and Algeria.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Wind extremely variable over the United Kingdom, but mainly Westerly at the southern stations, Southerly in the east, and Easterly to South-Easterly in the north; moderate to light from North-West and North over the Iberian Peninsula, from West in France, from South-West in the Netherlands, and from East over Denmark and Scandinavia; South-Easterly over Austria-Hungary and Poland, Easterly over the south of Russia, and chiefly North-Westerly over the Mediterranean. Becoming Easterly (South-East to North-East) all over our Islands, the North Sea, and north Germany later.

Barometer highest, (1) 30·3 ins. to 30·1 ins. over Sweden, Finland, the Baltic, and Russia; (2) 30·1 ins. to 29·8 ins. over the Spanish Peninsula and south-west of France, lower elsewhere; below 29·4 ins. in a depression off the north-west of Ireland, below 29·5 ins. in another at the mouth of St. George's Channel, below 29·6 ins. in a third over Italy and Corsica, and apparently below 29·7 ins. in a shallow secondary over Saxony. The depression over St. George's Channel moving southwards later, that in the north-west of Ireland filling up, that over Italy growing deeper.

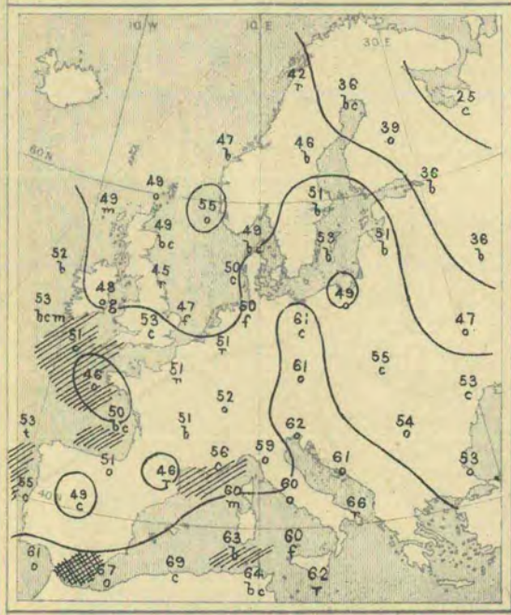
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 9th May.

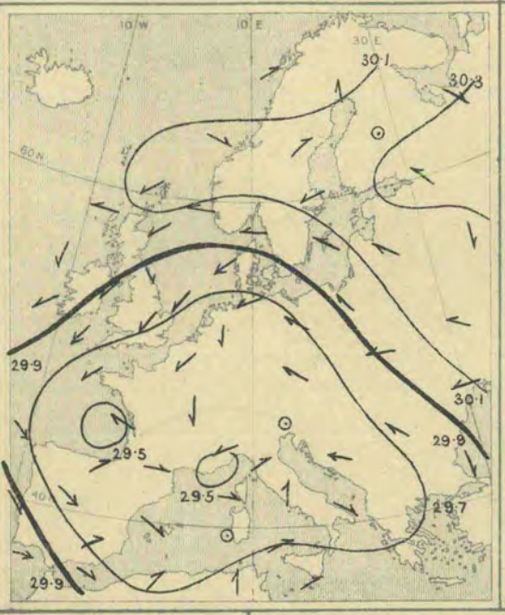
Temperature and Weather.

8 a.m.

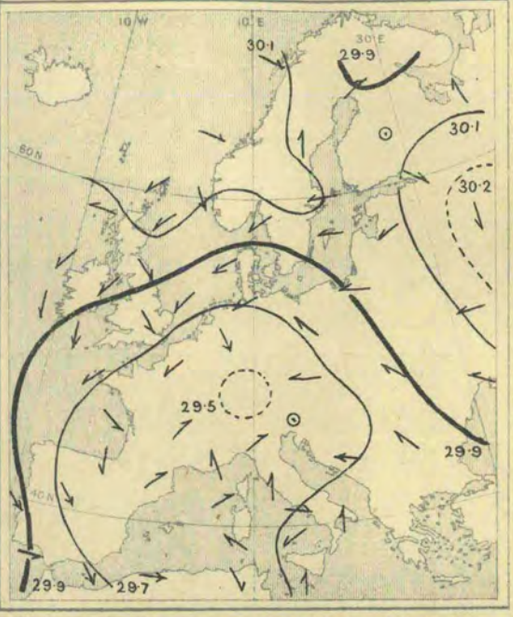


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over northern Europe and the Baltic, as well as at many of our own northern and western stations; cloudy or overcast elsewhere, with rain at some of our own stations and on the Continent, thunder at Corunna, fog on our eastern coasts, haze in the south-east. Rain later in many parts of our Isl nds, France, Germany, Austria, and Italy, as well as at Warsaw; fall considerable at many stations, slight at others.

Temperature changing irregularly; fallen over France and England, risen over Germany. Morning readings above 60° at most of the Mediterranean stations and at many of those over Austria and Germany; below 50° over the northern and eastern parts of our Islands and in Scandinavia, and as low as 25° at Archangel, 36° at Moscow, St. Petersburg, and Haparanda. Rising later to 60° and rather more at many of our western stations and some parts of France, to 70° and more over Germany, Austria, and Italy, and to 80° and more in some parts of Algeria.

Wind moderate from the South-Westward over the northern parts of Scandinavia, but mainly Easterly over Germany and the Baltic, North-Easterly to Northerly over the North Sea, the British Islands, and north of France, North-Westerly to Westerly over Spain and Algeria; very variable over the southern parts of Germany and France, and in Italy. Becoming more Northerly over our Islands and the Bay of Biscay later and freshening a little at times.

Barometer highest, 30·3 ins. and more to 30·1 ins. over Russia, and in a "col" stretching thence across Scandinavia to Scotland; exceeding 30·0 ins. off the west of Ireland, and exceeding 29·9 ins. over the south-west of Spain. Lowest, 29·6 ins. and less over France, Germany, the northern parts of the Mediterranean, and as low as 29·5 ins. at Nice. Rising slowly over north-western Europe and depression over France and Germany decreasing in size and moving south-eastwards.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The distribution of pressure over Europe has varied greatly during this week.

(1) At first the readings were highest over Spain on the one hand and the Black Sea on the other, and depressions of irregular form, but little depth, moved eastwards over the more northern countries, causing Westerly in all those regions, while variable and North-Easterly breezes were felt in the south. (2) The high-pressure area in the south-west then began to move north-eastwards; it reached the North Sea on Tuesday, Scandinavia and the Baltic on Wednesday, while low-pressure systems appeared off our western coasts and over south-eastern Europe. Thus, Easterly to Southerly winds and fine mild weather prevailed over the British Islands, while cold Northerly winds were reported over nearly the whole of the Continent. (3) The high-pressure system just mentioned now became established over northern Europe, the Baltic, and Russia, and a new one began to spread over the western parts of the Iberian Peninsula from the Atlantic; the region of low pressure at this time being the Mediterranean on the one hand and the Atlantic (off the west of Ireland) on the other. Temperature changed fitfully, and, as a very complex low-pressure system spread over our Islands from the westward, on Thursday night the weather became very unsettled over western and north-western Europe for a time, and in many localities there was a good deal of rain. (4) The new low-pressure system now moved south-eastwards, and, passing between the two anticyclonic areas referred to above, joined that already prevailing over southern Europe and the Mediterranean. In its rear the barometer rose decidedly, cold North-Easterly winds set in over the United Kingdom, and frost occurred on the grass in the nights; a warm South-Easterly current, however, spread over central Europe, while Switzerland and northern Italy were cold, gloomy, and wet.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 104.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	3·5	?	23	?	EASTBOURNE	45·4	?	44	?
OSWALDKIRK (Yorkshire)	29·4	?	27	?	TORQUAY	44·2*	?	43*	?
WORKSOP	29·5	− 7·5	28	− 7	ARLEY COTTAGE (County Cavan)	27·1	?	25	?
THURCASTON (Leicestershire)	30·2	− 4·8	28	− 6					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 19.] *Third Series.* WEEK ENDING SATURDAY, 16TH MAY, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881–90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 110.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	71	29	55·2	38·4	46·3	1 below.	45	+ 6	10	+ 3	293	+50	595	+ 64
1. SCOTLAND, EAST	76	26	57·7	38·8	47·7	0 (average)	53	+ 2	9	+ 3	321	−23	644	+ 81
2. ENGLAND, N.E.	76	32	56·6	42·3	49·0	1 above.	49	0	0	− 3	286	−38	574	+ 78
3. ENGLAND, EAST	80	35	60·2	43·3	51·2	1 above.	64	+ 1	0	− 4	397	−27	675	+118
4. MIDLAND COUNTIES	81	29	62·8	43·7	52·7	3 above.	75	+12	0	− 4	441	−11	646	+ 98
5. ENGLAND, SOUTH	82	34	64·0	46·1	54·5	3 above.	88	+20	0	− 2	449	−35	557	+142
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	74	32	58·9	42·0	50·0	1 above.	56	+ 2	0	− 4	377	+24	443	+ 29
7. ENGLAND, N.W.	73	32	57·9	44·4	50·8	1 above.	62	+ 5	0	− 2	334*	+21	438	+ 25
8. ENGLAND, S.W.	83	35	62·5	46·8	54·2	4 above.	85	+24	0	− 1	475	− 5	421	+106
9. IRELAND, NORTH	75	31	57·5	42·6	49·6	0 (average)	53	− 3	0	− 2	441	+ 1	377	+ 17
10. IRELAND, SOUTH	75	38	60·9	44·8	52·4	1 above.	73	+12	0	− 2	579	+26	296	+ 19
— CHANNEL ISLANDS	74	42	57·1	48·9	52·7	1 above.	75	+ 7	0	0	539	− 1	162	+ 40

Rainfall.

DISTRICTS. (See p. 110.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	5	9	3 more.	86	− 4	17·3	+ 0·2
1. SCOTLAND, EAST	3	3	2 less.	53	−19	6·9	− 3·6
2. ENGLAND, N.E.	2	2	3 less.	60	− 8	5·5	− 2·7
3. ENGLAND, EAST	2	2	3 less.	59	− 8	4·9	− 3·1
4. MIDLAND COUNTIES	3	3	2 less.	54	−10	6·0	− 3·2
5. ENGLAND, SOUTH	2	2	2 less.	51	−13	6·6	− 2·8
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	3	4	3 less.	62	−15	11·4	− 6·0
7. ENGLAND, N.W.	3	4	1 less.	51	−20	6·5	− 4·2
8. ENGLAND, S.W.	2	1	4 less.	52	−20	8·8	− 5·0
9. IRELAND, NORTH	3	3	2 less.	67	−14	8·0	− 3·8
10. IRELAND, SOUTH	2	2	4 less.	59	−16	7·6	− 6·5
— CHANNEL ISLANDS	2	1	3 less.	58	−20	7·6	− 3·8

Bright Sunshine.

DISTRICTS. (See p. 110.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	48	+14	42	+12	433	+ 40	29	+ 2
1. SCOTLAND, EAST	56	+26	50	+23	479	+ 42	32	+ 2
2. ENGLAND, N.E.	57	+15	52	+15	446	+ 62	29	+ 3
3. ENGLAND, EAST	58	+13	54	+11	498	+ 33	33	+ 2
4. MIDLAND COUNTIES	58	+17	53	+15	465	+ 52	31	+ 3
5. ENGLAND, SOUTH	53	+ 6	50	+ 5	501	+ 64	33	+ 4
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	53	+ 9	49	+10	478	+ 60	32	+ 4
7. ENGLAND, N.W.	47	+ 3	43	+ 3	444	+ 38	29	+ 2
8. ENGLAND, S.W.	64	+16	60	+16	571	+ 70	37	+ 4
9. IRELAND, NORTH	60	+18	55	+17	489	+ 72	32	+ 4
10. IRELAND, SOUTH	62	+17	57	+15	535	+ 47	35	+ 2
— CHANNEL ISLANDS	56	+ 2	53	+ 1	702	+106	46	+ 7

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather during this period has varied greatly. The earlier half of the week was fine, dry, and summerlike, but, subsequently, it became very cold and rough, with heavy showers of rain, sleet, or snow over the more northern districts and of rain and hail in the south and south-west. Thunder and lightning were experienced in many parts of England on the 15th.

Temperature was rather low during the first day of the period, but by the following day it had risen quickly, and remained high generally until the 14th. It then fell continuously for some days and became very low. The range of temperature was unusually large, amounting in nearly all parts of the Kingdom to between 45° and 52°. The highest of the maxima, which were generally recorded on the 12th, ranged from 80° to 82° at many of the inland English districts to 75° over Ireland, and to between 71° and 76° in Scotland. The lowest of the minima were registered on the 16th, and varied from 42° in the "Channel Islands" and 38° in "Ireland S." to 29° in the "Midland Counties" and "Scotland N.," and to 26° in "England E."

Rainfall has been rather more than the mean in "Scotland N.," but in all other parts of the Kingdom it has been less than the normal.

Bright Sunshine has been more prevalent than it was during last week, and has exceeded the mean in all districts. The percentage of the possible duration varied from 42 in "Scotland N." to between 50 and 57 in most other districts and to 60 in "England S.W."

Barometer and Wind.—During the earlier part of the period the distribution of pressure over our Islands was anticyclonic, and the winds light from between North and East in the south and mostly from the Westward in the north. As the week drew towards its close, however, some large and important disturbances moving south-eastwards over the North Sea and Scandinavia caused strong and very cold North-Westerly to Northerly winds over the United Kingdom generally and a gale in the north.

* This value has been altered slightly owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 109 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ℛ	59	31	50·6	37·7	43·8	− 0·9	31	12	5	0·49	+0·09	*	*	*	*
	Stornoway	63	30	54·6	38·3	46·0	− 0·7	44	10	5	0·38	−0·21	55·9	+13·7	49	+12
	Wick	71	32	55·3	38·0	46·1	− 0·3	46	11	4	0·61	+0·22	*	*	*	*
	Lairg ℛ	71	29	56·0	36·5	45·7	− 1·0	49	15	5	0·95	+0·45	*	*	*	*
	Glencarron ℛ	70	30	55·5	38·1	46·3	− 0·2	46	11	5	2·41	+1·40	*	*	*	*
	Fort Augustus ℛ	71	32	55·9	39·0	46·9	− 0·6	47	8	3	0·41	−0·07	36·6	?	32	?
	Fort William ℛ	70	34	58·3	41·1	49·2	+ 0·2	54	3	5	0·77	−0·03	50·8	?	45	?
1. SCOTLAND, E.	Nairn	72	32	56·7	39·4	47·5	− 1·1	49	7	4	0·51	+0·16	*	*	*	*
	Aberdeen	69	33	55·7	39·7	47·2	− 0·5	46	6	5	0·46	−0·02	67·6	+25·3	60	+22
	Braemar ℛ	68	26	54·8	33·9	43·7	− 1·6	46	23	3	0·61	+0·10	53·7†	? †	47†	?†
	Ochtertyre ℛ	76	29	62·7	37·9	49·6	+ 2·0	70	11	2	0·05	−0·51	*	*	*	*
	Leith ℛ	72	36	58·0	41·1	49·0	0·0	53	3	2	0·02	−0·36	*	*	*	*
	Marchmont ℛ	74	33	58·1	41·0	49·0	+ 2·0	53	3	3	0·18	−0·34	57·8	?	52	?
2. ENGLAND, N.E.	Alnwick Castle	64	32	54·4	40·6	47·1	+ 0·2	42	4	3	0·13	−0·37	*	*	*	*
	Durham	74	34	60·4	41·8	50·5	+ 2·6	60	1	2	0·02	−0·45	58·0	+19·0	53	+17
	Shields	69	34	55·9	42·0	48·5	+ 0·8	46	0	1	0·01	−0·39	*	*	*	*
	Scarborough ℳ	63	36	53·9	43·3	48·3	− 0·4	44	0	2	0·22	−0·23	*	*	*	*
	York	76	36	61·9	42·1	51·4	+ 1·7	66	0	2	0·26	−0·16	56·8	+14·8	52	+15
	Spurn Head	61	37	53·1	44·0	48·3	− 0·5	44	0	3	0·39	+0·04	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	76	36	59·2	42·4	50·3	+ 0·1	58	0	2	0·14	−0·28	59·9	+12·9	55	+11
	Yarmouth	65	39	54·0	43·7	48.5	− 0·8	46	0	2	0·17	−0·24	*	*	*	*
	Geldeston	76	35	59·6	42·4	50·5	+ 0·8	60	0	2	0·12	−0·30	65·1	+14·1	60	+12
	Cambridge	80	36	64·7	43·0	53·2	+ 2·1	78	0	3	0·25	−0·17	53·4	+ 9·1	49	+ 8
	Rothamsted	76	37	63·3	45·2	53·7	+ 4·0	82	0	3	0·21	−0·20	53·9	?	50	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	76	29	60·9	40·3	50·0	− 0·3	63	5	4	0·38	−0·08	*	*	*	*
	Loughborough	81	38	63·6	45·1	53·8	+ 2·5	83	0	4	0·52	+0·05	*	*	*	*
	Stamford (Ketton Hall)	79	35	65·1	43·0	53·4	+ 2·0	80	0	4	0·36	?	*	*	*	*
	Cheadle ℳ	74	33	59·1	43·0	50·6	+ 2·1	60	0	3	0·41	−0·12	*	*	*	*
	Churchstoke ℳ	77	33	61·3	41·5	51·0	+ 2·6	65	1	3	0·39	−0·10	57·7	+16·5	53	+14
	Hereford ℳ	77	37	64·7	44·6	54·1	+ 3·3	85	0	2	0·21	−0·25	*	*	*	*
	Cirencester	75	38	64·1	46·6	54·8	+ 5·3	90	0	2	0·15	−0·35	64·2	+20·3	59	+18
	Oxford	76	39	63·3	45·7	54·0	+ 3·0	84	0	3	0·14	−0·31	56·2	+13·2	52	+12
5. ENGLAND, S.	London	78	37	65·7	46·9	55·7	+ 3·4	96	0	2	0·27	−0·15	44·0†	+ 3·2 †	41†	+ 2†
	Strathfield Turgiss ℳ	80	35	67·9	44·3	55·4	+ 4·2	94	0	3	0·19	−0·21	*	*	*	*
	Dungeness	68	34	57·6	45·3	51·1	− 0·1	64	0	2	0·28	−0·13	*	*	*	*
	Hastings (St. Leonards)	76	37	62·5	46·5	54·0	+ 2·3	84	0	2	0·18	−0·29	53·2	+ 1·2	50	+ 1
	Southampton	82	37	68·4	47·1	57·1	+ 4·7	106	0	2	0·24	−0·27	56·4	+ 9·4	53	+ 9
	Hurst Castle	77	40	63·4	46·9	54·7	+ 3·2	89	0	2	0·16	−0·26	*	*	*	*
	Stowell ℳ	75	40	62·3	45·5	53·4	+ 3·1	80	0	2	0·18	?	59·6†	?†	56†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart)	68	32	58·5	40·3	48·9	− 0·6	55	5	5	0·51	−0·39	*	*	*	*
	Glasgow	70	35	57·7	41·7	49·2	+ 0·2	52	1	3	0·25	−0·29	44·1	+ 8·1	40	+ 8
	Ardrossan	64	36	58·0	42·9	50·0	+ 0·3	56	0	2	0·42	−0·11	*	*	*	*
	Glenlee ℛ	74	34	60·8	41·1	50·4	+ 2·4	63	3	3	0·30	−0·36	*	*	*	*
	Douglas (Isle of Man)	72	39	59·7	43·8	51·3	+ 2·3	65	0	3	0·33	−0·16	62·4	+12·4	57	+10
7. ENGLAND, N.W.	Newton Reigny	72	32	59·9	41·8	50.3	+ 3·3	59	1	3	0·21	−0·25	53·4	+ 8·5	49	+ 8
	Stonyhurst	72	35	58·6	42·9	50·3	+ 0·7	58	0	4	0·76	+0·18	48·1	+ 5·1	44	+ 6
	Blackpool ℳ	72	40	56·8	45·5	50·8	+ 1·1	62	0	3	0·11	−0·34	37·3	− 7·6	34	− 7
	Manchester	73	34	59·1	43·5	50·8	+ 1·4	62	0	4	0·54	+0·01	*	*	*	*
	Liverpool Obsy. (Bidston)	68	37	57·9	46·0	51·6	+ 0·8	67	0	4	0·59	+0·18	*	*	*	*
	Llandudno ℳ	67	36	57·7	45·6	51·3	+ 0·5	65	0	3	0·41	0·00	47·6	+ 4·6	44	+ 4
	Holyhead	60	39	55·4	45·6	50·2	− 0·4	57	0	3	0·08	−0·35	*	*	*	*
8. ENGLAND, S.W.	Llandovery	82	37	66·6	45·0	55·2	+ 5·1	92	0	3	0·18	−0·46	*	*	*	*
	Pembroke	67	41	58·0	47·6	52·5	+ 2·7	74	0	2	0·21	−0·24	65·0	+16·8	60	+15
	Arlington (N. Devon)	72	35	61·4	44·4	52·5	+ 3·3	74	0	2	0·10	−0·57	*	*	*	*
	Cullompton ℳ	77	39	63·9	46·3	54·6	+ 4·2	88	0	2	0·08	−0·42	65·6	+23·3	61	+21
	Falmouth	67	39	59·0	47·5	53·0	+ 1·8	77	0	3	0·11	−0·51	63·6	+15·5	60	+14
	Plymouth	72	41	65·7	49·3	57·0	+ 4·1	105	0	1	0·06	−0·42	61·3	+15·2	58	+14
	Prawle Point	74	40	62·9	47·6	54·8	+ 4·3	90	0	0	—	−0·36	*	*	*	*
9. IRELAND, N.	Malin Head	61	37	52·4	44·9	48·4	− 2·1	45	0	2	0·10	?	*	*	*	*
	Londonderry	73	35	61·1	41·6	50·8	+ 0·2	63	1	3	0·54	+0·02	*	*	*	*
	Mullaghmore	63	38	55·7	44·4	49·7	− 1·1	54	0	3	0·35	−0·18	*	*	*	*
	Belmullet	69	39	57·0	44·6	50·4	− 1·1	59	0	4	0·32	?	*	*	*	*
	Markree Castle	70	34	59·0	39·6	48·7	− 0·1	57	7	3	0·45	−0·03	62·4	+20·6	57	+19
	Brookeborough	73	34	59·5	39·7	49·0	+ 0·3	59	6	3	0·24	−0·33	*	*	*	*
	Armagh	75	34	60·3	42·4	50·8	+ 1·4	62	0	3	0·18	−0·30	57·7	+16·4	52	+14
	Donaghadee	62	40	57·0	46·7	51·5	+ 1·9	67	0	3	0·32	−0·18	*	*	*	*
	Edgeworthstown	69	31	55·4	39·1	46·8	− 2·4	46	8	3	0·24	−0·31	*	*	*	*
10. IRELAND, S.	Dublin	68	38	59·5	45·6	52·1	+ 0·9	71	0	3	0·12	−0·33	68·0	+20·4	63	+19
	Parsonstown	75	38	61·7	41·9	51·2	+ 1·0	65	0	3	0·14	−0·36	58·0	+15·6	54	+14
	Kilkenny	75	38	62·1	44·9	53·0	+ 2·6	77	0	2	0·09	−0·37	*	*	*	*
	Waterford	71	38	63·4	45·2	53·8	+ 2·3	83	0	1	0·02	−0·52	*	*	*	*
	Roche's Point	65	41	59·6	47·9	53·4	+ 1·6	80	0	1	0·15	−0·56	*	*	*	*
	Valencia	67	43	59·3	46·4	52·5	+ 0·9	74	0	3	0·15	0·58	59·7	+12·6	55	+11
	Killarney	73	38	61·2	42·4	51·2	+ 0·5	64	0	3	0·25	?	*	*	*	*
	Foynes	71	38	60·4	44·2	51 8	+ 1·0	69	0	3	0·28	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	57	42	54·0	4··3	51·0	− 0·7	63	0	2	0·21	−0·21	*	*	*	*
	Jersey	74	46	60·1	49·4	54·4	+ 1·7	87	0	2	0·05	−0·36	55·5	+ 1·5	53	+ 1

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℛ with the Scottish Meteorological Society.

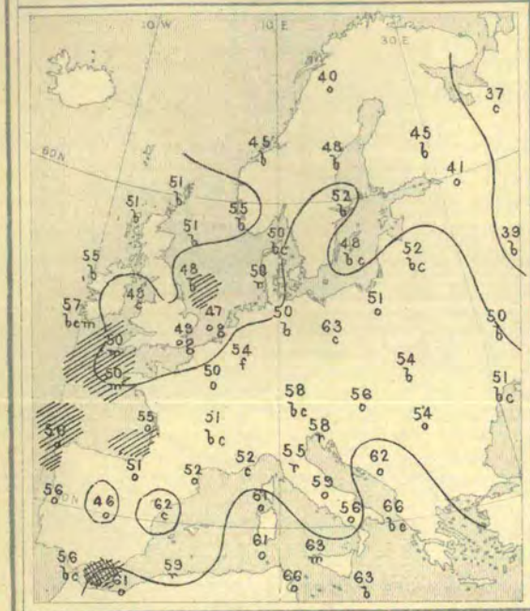
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

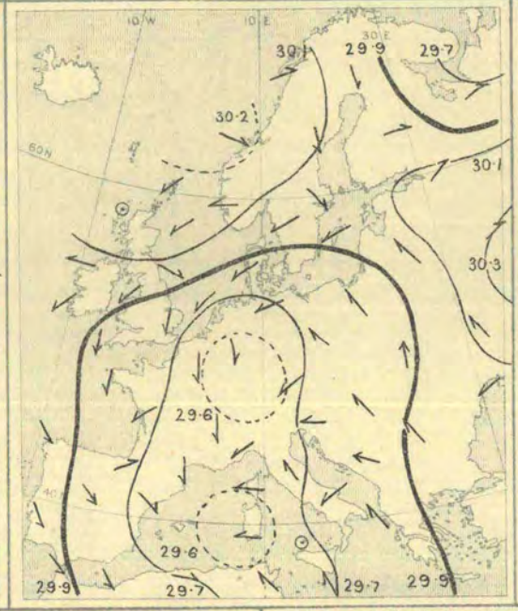
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 10th May.

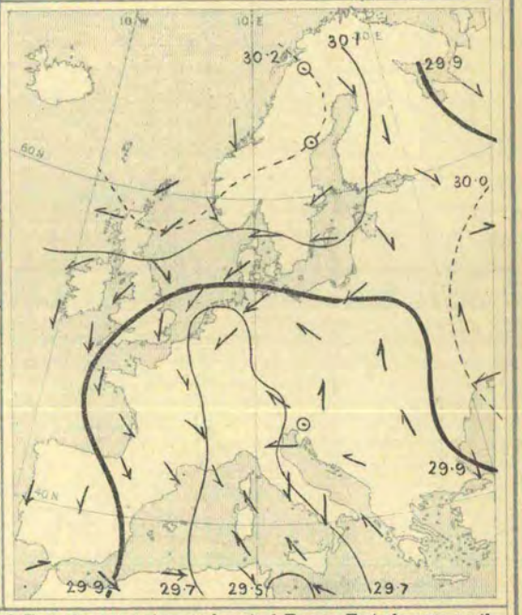
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over Ireland, Scotland, northern, eastern, and central Europe, dull and unsettled elsewhere; rain and mist at several stations in England, France, Spain, Algeria, and north Italy; fog and haze on the south side of the Channel. Rainfall later—somewhat considerable at Spurn Head and Paris, slight at few other English and French stations. Thunderstorm occurring at Paris, and also in several parts of Germany.

Temperature fallen somewhat over central Europe and in Italy. Morning readings exceeding 60° over the southern and eastern parts of the Mediterranean and several parts of north Germany, but below that value elsewhere. Below 50° over central Russia, northern Europe, and the eastern half of England, and as low as 37° at Archangel, 39° at Moscow, 40° at Bodö, 41° at Haparanda and St. Petersburg, 47° at Spurn Head, Loughborough, Oxford, and Cape Griz Nez. Remaining low all day over the eastern and south-eastern parts of England, but rising to 60° and more in the Hebrides and in many parts of Ireland and France to 70° and more over central and southern Europe, and to 81° at Berlin.

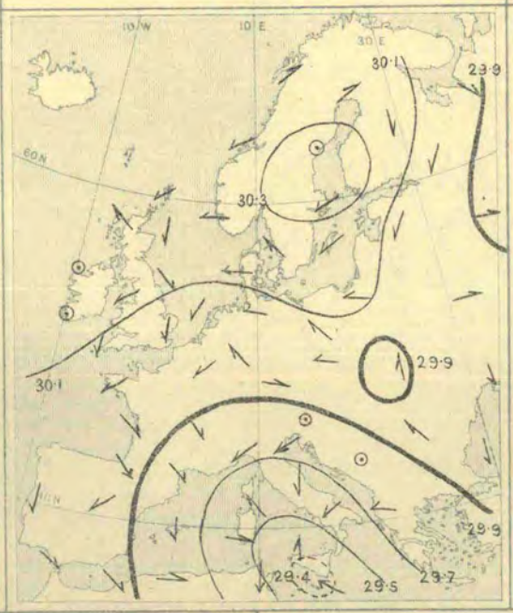
Wind mainly Southerly or South-Easterly over eastern and central Europe, Easterly over north Germany, the Baltic, and Denmark, Northerly over Ireland, England, and France, North-Westerly over Spain, and Westerly in Algeria. Westerly to Northerly breezes reported over Lapland, Finland, and the Gulf of Bothnia. No important change occurring later.

Barometer highest, (1) 30·3 ins. to 30·1 ins. in an anticyclone over central Russia; (2) 30·2 ins. to 30·1 ins. over Norway, Scotland, and the neighbouring parts of the Atlantic, and exceeding 30·0 ins. in a "col" lying over the Baltic, and uniting the two anticyclones mentioned; exceeding 30·0 ins. over Portugal also; lower elsewhere, and as low as 29·6 ins. and less in a depression over western Germany and eastern France, in another over Sardinia and the neighbouring parts of the Mediterranean, and 29·5 ins. and less in a third lying to the southward of Tunis and Malta. Rising over our Islands and France during day. Depression over western Germany partially filling up.

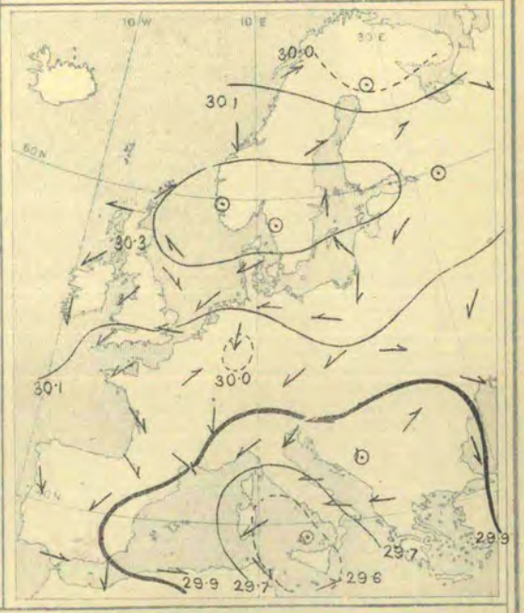
Monday, 11th May.

Temperature and Weather. 8 a.m.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright over the British Isles, the North Sea, the Baltic, and northern Europe generally, also over Spain, Germany, Austria, and many parts of south-eastern Europe; dull over France, cloudy and unsettled over the Mediterranean, with rain at several stations. Slight rain in south of France later and heavy rain in Algeria and Sicily; thunderstorm at Brussels in evening. A good deal of haze or fog in the English Channel.

Temperature changing fitfully; morning readings exceeding 60° at the Mediterranean stations and some parts of Germany, and exceeding 50° over western Europe and the greater part of the British Islands. Lower elsewhere; as low as 32° at Archangel, 37° at Haparanda, 42° at St. Petersburg, 45° at Helsingfors, 46° at Wick, 48° at Neufahrwasser, 49° at Shields. Rising fast during day to between 60° and 70° in many parts of Great Britain and France, to 72° at Belfort, to 75° at Brussels, Berlin, and in London, and to 77° at Wiesbaden.

Wind light and extremely variable over Ireland, Scotland, and the northern half of Scandinavia, mainly Easterly to Northerly over the Baltic, Germany, Holland, England, and the north of France, North-Westerly over the Bay of Biscay. Strong to moderate Northerly over the north of Italy, fresh North-Westerly over Tunis; very light and variable over central and south-eastern Europe. Easterly and North-Easterly breezes setting in over Ireland and Scotland later in day.

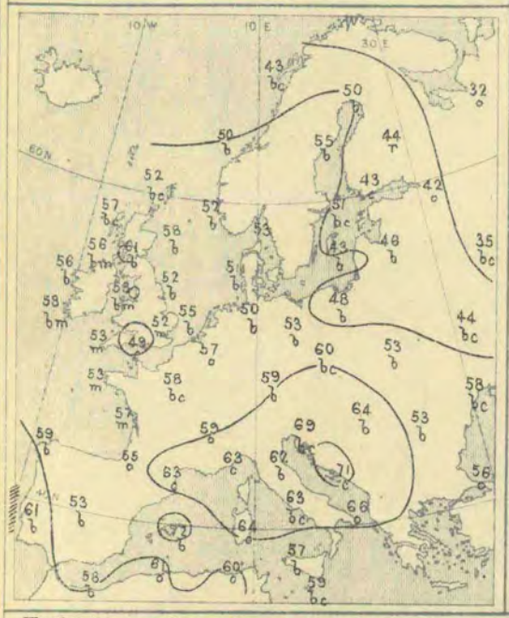
Barometer highest, (1) 30·3 ins. to 30·1 ins. over Ireland, the northern parts of Great Britain, the Baltic, and Scandinavia; (2) 30·1 ins. to 30·0 ins. over southern Russia; (3) 30·0 ins. and more over the western half of Spain. Lowest, 29·4 ins. and less in a large depression over the Mediterranean, having its centre near Malta, and below 30·0 ins. all over France, Germany, western and central Russia. Rising over our Islands till night, then falling a little in the extreme north and over Lapland.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons

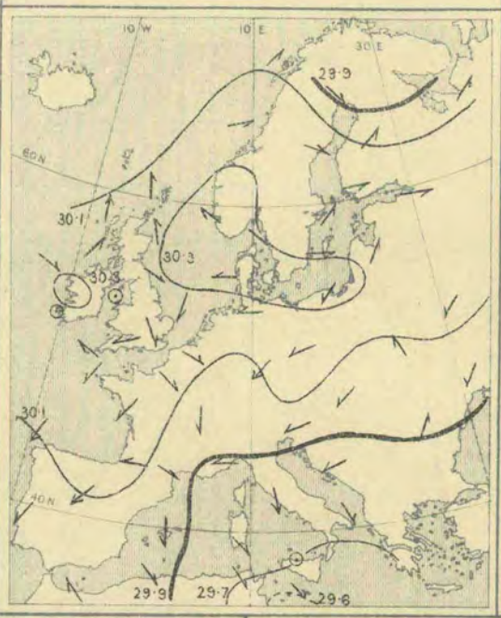
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 12th May.

Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.

Weather fine over the greater part of our Islands and the Continent, but hazy at several of the British and French stations. Dull over northern Russia (with rain at Kuopio), as well as in Algeria and the south of Italy. Subsequently becoming cloudy in the extreme north of Scotland and the west of Norway. Thunderstorms occurring at many of the French stations.

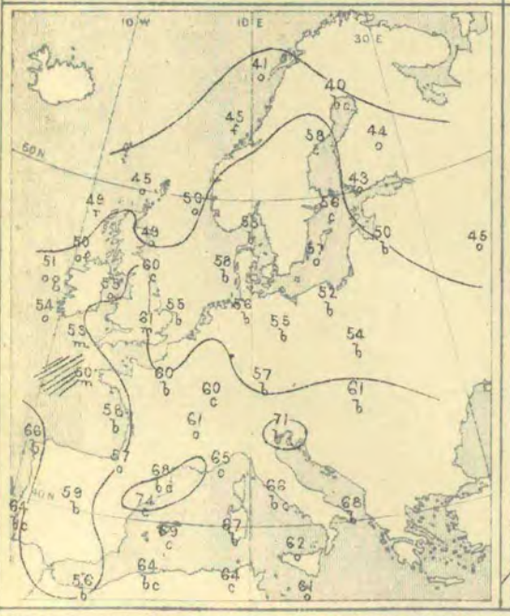
Temperature highest, 79° at Palma, 71° at Lésina, 69° at Barcelona and Trieste, and 68° at Toulon; above 60° over southern Europe generally, as well as over Austria and western Germany, but below that point at several of the Algerian stations. Lowest, 32° at Archangel, 35° at Moscow, 41° at Kharkov, and 42° at St. Petersburg; below 50° at most of the Russian stations, as well as in the north of Scandinavia. Rapid rise taking place during day over the inland parts of the United Kingdom; thermometer reaching 75° at Parsonstown, 78° in London, and 81° at Loughborough. Similarly high maxima reported over the greater part of central and southern Europe.

Wind light or moderate from the North-Eastward (North to East) over the southern half of the United Kingdom, and greater part of central, southern, and eastern Europe; North-Westerly in Algeria. Light from the Southward in the north of Scotland, from the South-Westward in the west of Norway, and from the Westward over Sweden and the north of Russia. Subsequently veering to the South-Westward in the north of Scotland and increasing to a fresh or strong breeze; strong South-Westerly gale reported in the west of Norway.

Barometer highest, 30·1 ins. to 30·3 ins. or a little more in a large anticyclone embracing all but the extreme northern and southern parts of Europe. Lowest, 29·6 ins. and less in a depression lying off the coasts of Tunis, 29·9 ins. and less in a long shallow disturbance over Lapland. New depression, with readings below 29·8 ins., subsequently approaching the west of Norway from the Atlantic; no other change of importance observed.

Wednesday, 13th May.

Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.

Barometer and Wind. — 6 p.m.

Weather fine over England and the greater part of the Continent, dull at many of the Scotch and Irish stations, with rain at Stornoway and Mullaghmore. Dull also over northern and central Russia, Tunis, Sicily, and the adjacent parts of the Mediterranean. Rain falling later in Norway and the north of Scotland; thunderstorms over the southern half of France, with heavy rain in several localities.

Temperature highest, 74° at Barcelona, 73° at Toulon, 71° at Trieste, and 70° at Lésina; above 60° over the whole of southern Europe and the Mediterranean, as well as at many of the English stations. Lowest, 40° at Haparanda, 41° at Bodö, 42° at Helsingfors, 48° at Uleaborg and Hangö, and 45° at Sumburgh Head, Christiansund, and Moscow. Rising during day to between 75° and 80° over the inland parts of England and France, and to a higher value over Austria, Italy, and Algeria; remaining below 55° in the extreme north and north-west of our Islands.

Wind moderate from the Westward or South-Westward over Scandinavia, northern Russia, and the north of Ireland, variable or North-Easterly in the extreme north of Scotland, North-Westerly over England and the south of Ireland, north of France, and Germany, and North-Easterly in Spain and Italy. Light and variable over Algeria. Fresh North-Westerly breezes setting in later over the north of Scotland and Westerly wind increasing over Scandinavia. No change of importance elsewhere.

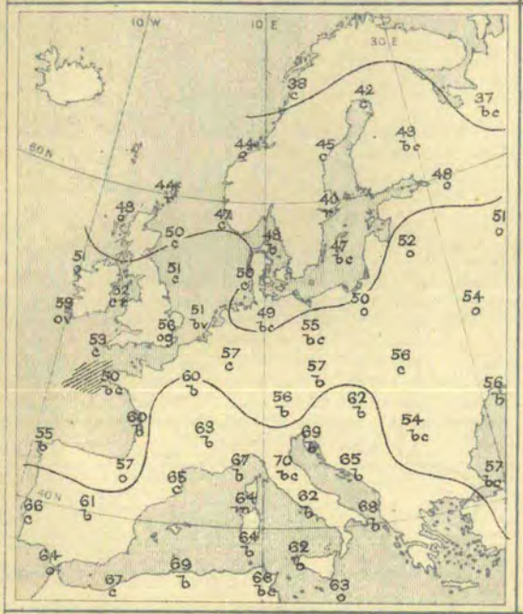
Barometer highest, 30·3 ins. and upwards over Ireland, 30·0 ins. and upwards to 30·2 ins. in a large anticyclone extending from the Atlantic over western Europe, and exceeding 30·0 ins. in a large ridge extending thence in an easterly direction as far as Russia. Lowest, 29·4 ins. and less in a depression lying over Lapland and the Kola Peninsula, 29·8 ins. and less in a shallow system lying to the southward of Sicily, 30·1 ins. and less in a smaller and still shallower system over the north-west of Scotland. Scotch disturbance subsequently moving away in an easterly direction, and "hollow" forming over Sweden and the Gulf of Bothnia; barometer rising on our extreme north-west coasts.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

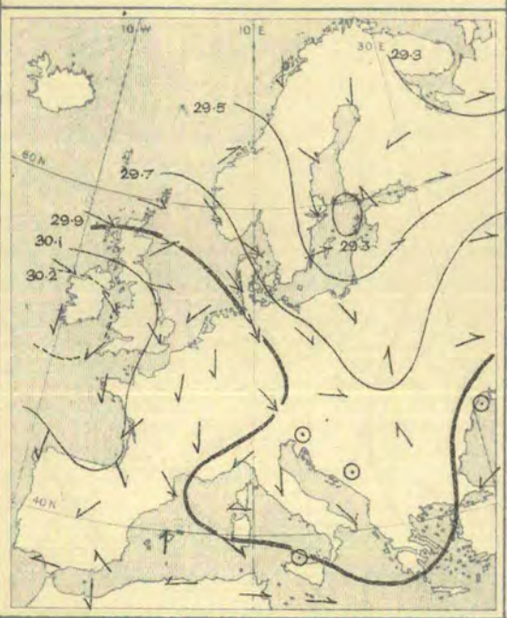
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 14th May.

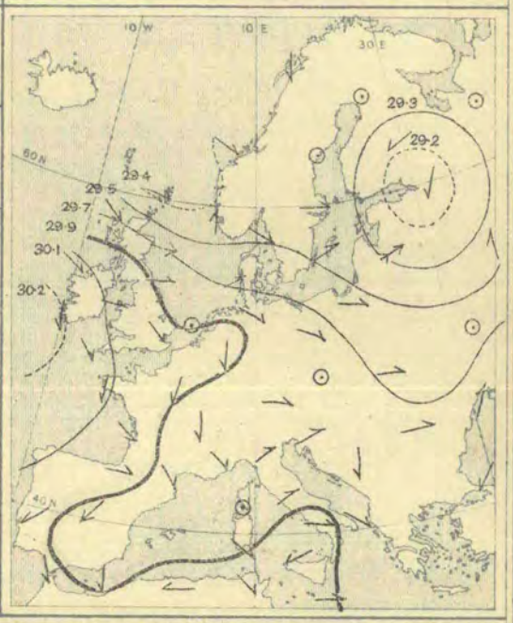
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over nearly the whole of western, southern, and south-eastern Europe; cloudy or overcast and unsettled elsewhere, with rain in places, more particularly in the north and north-west of our Islands. Squally and showery over Finland, Norway, Scotland, the north of Ireland, and north-west of England later, and becoming dull and gusty even in London in evening; thunder reported at Lyons and Bordeaux.

Temperature falling decidedly over the British Islands and their immediate neighbourhood. Morning readings exceeding 60° at most of the Spanish and Mediterranean stations (70° at Leghorn, 69° at Algiers), but lower elsewhere; below 50° in the north of Scotland and over northern Europe, and as low as 37° at Archangel, 38° at Bodö, 40° at Stockholm, 42° at Haparanda, 43° at Kuopio, 44° at Sumburgh Head. Rising to between 60° and 69° over England during day, to 70° and more in Germany, and to between 70° and 80° in many parts of France, Austria, and Italy, but failing to touch 50° at most of the Scandinavian stations. Falling suddenly over the south of England during evening.

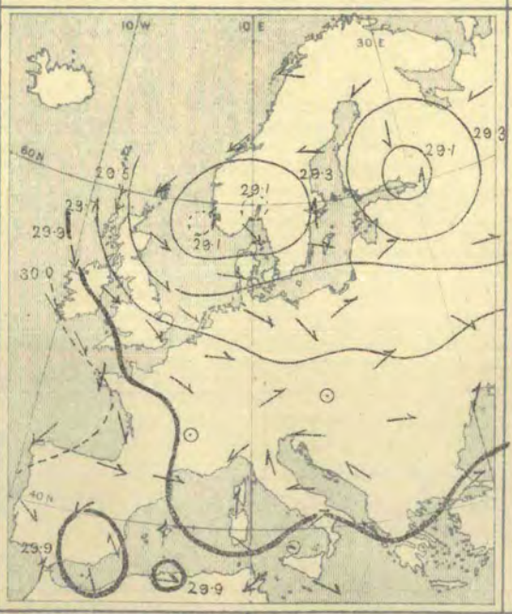
Wind moderate Westerly in Scotland and the north of Ireland, light Northerly over England and France, North-Easterly to Easterly over Spain; strong North-Westerly on the eastern shores of the North Sea and over the Baltic, moderate to light North-Westerly over Germany, light Southerly to Easterly over the Baltic provinces and Finland, very variable airs over south-eastern Europe. Strong breezes and moderate gales from the North-Westward in the north of our Islands later, and wind blowing gustily even in the south; varying breezes in Norway.

Barometer highest, 30·2 ins. and more to 30·6 ins. in a high pressure area spreading eastwards from the Atlantic to Ireland, England, the Bay of Biscay, and France; 29·9 ins. and more over the Black Sea. Lowest, 29·3 ins. and less over the White Sea and Kola Peninsula; 29·4 and less in a well-marked secondary disturbance over the Baltic; 29·6 ins. over Corsica, the south-east of France and Gulf of Genoa. New and somewhat deep secondary system approaching the Shetland Islands and Norway later from the north-westward.

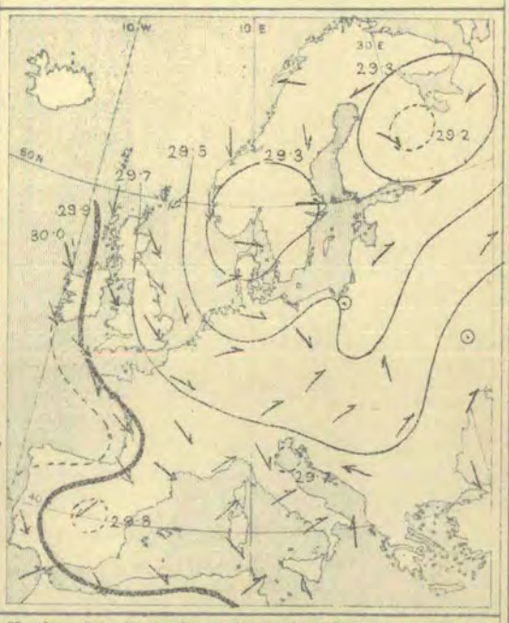
Friday, 15th May.

Temperature and Weather. 8 a.m.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright in Lapland, the south of the British Islands, and north of France, and at several of the Mediterranean stations; cloudy or overcast elsewhere, with squalls of rain, sleet, and hail in the north-west and north of the United Kingdom; unsettled very generally. Showers of sleet, hail, or rain very prevalent over western and north-western Europe and in Germany during day; thunder and lightning in many parts of England, and over central and southern Europe.

Temperature again fallen over the whole of western Europe, and becoming low for time of year. Morning readings much above 60° over Spain and the Mediterranean, exceeding 70° at Barcelona and Algiers; exceeding 50° over the southern half of Russia and in central Europe, but lower over the United Kingdom and Scandinavia; low as 39° at Bodö and Helsingfors, 41° at Ulcaborg, 42° at Sumburgh Head and Christiansund, 43° at Malin Head and Archangel, and 45° at Parsonstown and Liverpool. Not reaching 50° at any of our own stations later, but rising above that value over Germany and France, to 70° and 80° over central and southern Europe generally, and to more than 80° over Algeria.

Wind strong to a gale from the Northward in Scotland and the north of Ireland, moderate to strong from between West and North-West over England and the south of Ireland, and also over the Gulf of Finland; mainly Westerly (but variable) over north Germany; very variable elsewhere, both in force and direction. Becoming strong and squally from the North-Westward or Northward in nearly all parts of our Islands later, and freshening considerably in the Channel and Bay of Biscay.

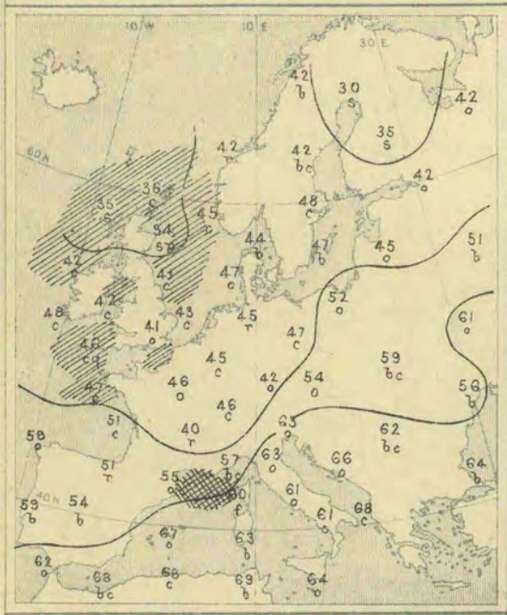
Barometer highest, 30·0 ins. and more over the Atlantic (to the south-westward and westward of our Islands) and over the north of Spain; exceeding 29·9 ins. over the southern side of the Mediterranean, in Greece, and Asia Minor; and exceeding 29·4 ins. over Lapland and the Kola Peninsula also. Lowest, 29·1 ins. and less in a depression near St. Petersburg; 29·2 ins. and less in another complex system lying over the south of Scandinavia, and between the Norwegian coast and the Shetlands; below 29·7 ins. all over north Germany, the Baltic Provinces, and central Russia. Rising in the north and north-west of our Islands later, and gradients for Northerly winds increasing over the United Kingdom.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons.

Saturday, 16th May.

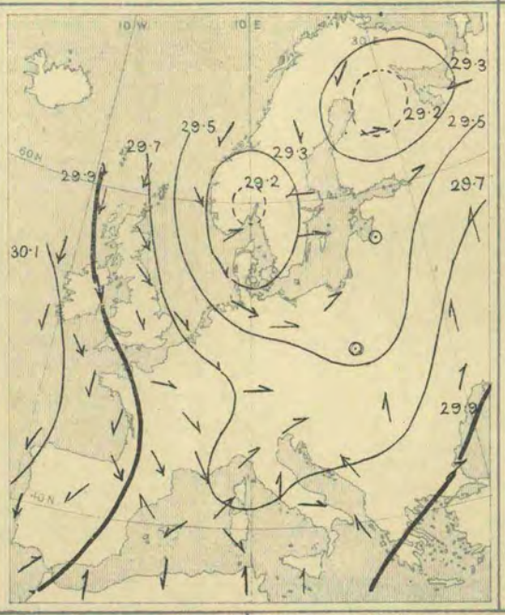
Temperature and Weather.

8 a.m.

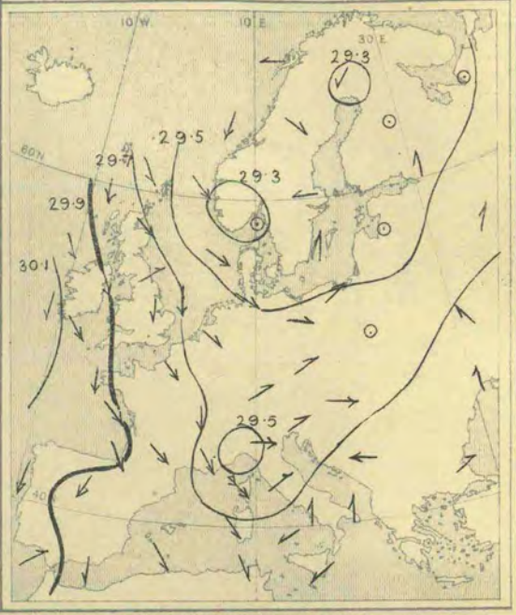


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine and bright over central and southern Russia and south-eastern Europe, as well as at some stations on the southern side of the Mediterranean, and, temporarily, on the Swedish coast; very dull elsewhere, and exceedingly unsettled and inclement over the British Islands and North Sea. Snow, hail, or cold rain squalls later in nearly all parts of our Islands, but amounts reported not heavy; slight rain in the north of France.

Temperature falling fast all over western Europe and change spreading southwards. Morning readings still exceeding 60° at most of the Mediterranean stations and in many parts of south-eastern Europe, and exceeding 50° over the Spanish Peninsula and central Europe; much lower elsewhere; below 40° over Scotland and the north-east of England, as well as over Finland, and as low as 30° at Haparanda, 35° at Kuopio and Stornoway, 34° at Aberdeen, 36° at Sumburgh Head, and 37° at Nairn. Failing to reach 50° over nearly the whole of Great Britain during day, but rising to between 60° and 70° in the south of France and at Corunna and Lisbon.

Wind mainly Northerly, moderate to a gale, over the British Islands and North Sea, and moderate Northerly over the Gulf of Bothnia; Westerly, moderate to strong, over Germany; light North-Westerly in France (strong at Toulon), but Southerly over northern Italy, in Hungary, and southern Russia; South-Easterly over the Adriatic. Becoming less strong over our Islands later.

Barometer highest, 30·1 ins. and more to 30·0 ins. over Ireland, the western parts of the Bay of Biscay, and the north-west of Spain; 29·9 ins. and more over southern Russia. Lowest, 29·2 ins. and less in two depressions—one over the north of Finland, the other over the Skager Rack and south-east of Norway; below 29·6 ins. over the Gulf of Genoa and the Riviera. Falling unsteadily throughout our Islands during day, but tending to rise over Scandinavia.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The depression noticed at the close of last week passed steadily away in a southerly and south-easterly direction, and on Tuesday (12th) was only just traceable over the Mediterranean, to the south-eastward of Sicily. In its rear a high-pressure system spread over north-western, northern, and central Europe, bringing with it fine and summer-like weather, in which temperature rose to 80° and more over England, and which continued with us until Wednesday. The high-pressure system then moved westward to the Atlantic, and, as depressions appeared over northern Europe, the Baltic, and North Sea, strong Northerly and North-Westerly winds set in all over the United Kingdom, accompanied by considerable quantities of cold rain, hail, sleet, snow, and in many places by thunder and lightning. At the close of the week these inclement winds were spreading over central and southern Europe, and were so keen that at many of our inland stations sharp frosts prevailed during the night both in the shade and on the ground.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 110.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	43·9	?	40	?	EASTBOURNE	49·3	?	47	?
OSWALDKIRK (Yorkshire)	56·1	?	51	?	TORQUAY	65·6 *	?	62 *	?
WORKSOP	51·7	+1·7	48	+12	ARLEY COTTAGE (County Cavan)	60·8	?	55	?
THURCASTON (Leicestershire)	59·4	+21·2	55	+19					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 20.] *Third Series.* WEEK ENDING SATURDAY, 23RD MAY, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 116.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	60	25	51·1	35·6	42·9	5 below.	33	−12	18	+13	326	+43	613	+ 76
	1. SCOTLAND, EAST -	63	28	52·4	35·6	43·5	5 below.	37	−20	18	+14	358	−37	662	+ 95
	2. ENGLAND, N.E. - -	59	23	50·0	35·2	42·2	8 below.	30	−27	19	+17	316	−63	593	+ 95
	3. ENGLAND, EAST -	60	28	52·2	36·9	44·1	7 below.	36	−36	14	+11	433	−58	689	+129
	4. MIDLAND COUNTIES	60	26	50·5	35·2	43·0	8 below.	36	−36	19	+16	477	−43	665	+115
	5. ENGLAND, SOUTH -	61	29	53·5	39·3	46·0	7 below.	39	−38	8	+ 7	488	−71	565	+149
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	58	26	53·3	35·7	44·0	6 below.	40	−20	18	+16	418*	+ 9	463*	+ 47
	7. ENGLAND, N.W. -	60	24	51·6	37·3	44·0	7 below.	34	−30	13	+12	418	− 5	451	+ 37
	8. ENGLAND, S.W. -	61	27	52·4	37·3	44·4	7 below.	37	−31	13	+12	512	−33	434	+118
	9. IRELAND, NORTH -	63	28	51·3	37·3	43·9	7 below.	33	−28	13	+12	474	−21	390	+ 28
	10. IRELAND, SOUTH -	59	29	52·9	37·2	44·6	8 below.	38	−30	13	+12	617	+ 1	309	+ 32
	— CHANNEL ISLANDS -	57	40	53·1	44·1	48·3	4 below.	44	−31	0	0	613	−30	162	+ 40

Rainfall.

	DISTRICTS. (See p. 116.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	5	5	1 less.	91	− 4	17·8	0·0
	1. SCOTLAND, EAST -	3	4	1 less.	56	−20	7·3	− 3·7
	2. ENGLAND, N.E. - -	4	4	0 (average)	64	− 7	5·9	− 2·7
	3. ENGLAND, EAST -	6	14	9 more.	66*	− 4	6·3	− 2·1
	4. MIDLAND COUNTIES-	6	12	7 more.	60	− 7	7·2	− 2·5
	5. ENGLAND, SOUTH -	6	14	9 more.	57	−10	8·0	− 1·8
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	4	3	4 less.	66	−15	11·8*	− 6·2
	7. ENGLAND, N.W. - -	4	5	0 (average)	55	−19	7·0	− 4·2
	8. ENGLAND, S.W. - -	5	13	7 more.	57	−18	10·1	− 4·2
	9. IRELAND, NORTH -	5	5	1 less.	72	−14	8·5	− 3·9
	10. IRELAND, SOUTH -	6	12	6 more.	65	−15	8·8	− 5·9
	— CHANNEL ISLANDS -	5	12	8 more.	63	−19	8·8	− 3·0

Bright Sunshine.

	DISTRICTS. (See p. 116.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	48	+ 9	41	+ 8	481	+ 49	30	+ 3
	1. SCOTLAND, EAST -	51	+16	42	+12	530	+ 50	33	+ 3
	2. ENGLAND, N.E. - -	35	− 7	31	− 5	481	+ 53	30	+ 3
	3. ENGLAND, EAST -	26	−22	24	−20	524	+ 14	32	0
	4. MIDLAND COUNTIES-	28	−14	25	−13	493	+ 39	30	+ 1
	5. ENGLAND, SOUTH -	36	−10	33	−11	537	+ 55	33	+ 3
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	50	+ 5	44	+ 6	528	+ 68	33	+ 4
	7. ENGLAND, N.W. - -	37	− 9	33	− 7	481	+ 30	29	+ 1
	8. ENGLAND, S.W. - -	33	−14	30	−14	604	+ 54	37	+ 3
	9. IRELAND, NORTH -	37	− 2	34	0	526	+ 68	32	+ 3
	10. IRELAND, SOUTH -	43	− 2	39	− 1	578	+ 45	35	+ 2
	— CHANNEL ISLANDS -	51	− 5	48	− 4	753	+ 99	46	+ 6

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been very cold and inclement throughout the period. Showers of sleet and snow were generally experienced during the earlier days of the week and frequent falls of cold rain and hail subsequently. In Scotland, however, the showers were less heavy than elsewhere, and several fine, bright intervals occurred. Thunderstorms were prevalent in many places both on Wednesday and Saturday.

Temperature has been extremely low for the time of year, the deficit having ranged from 4° in the "Channel Islands" and 5° in the north and east of Scotland, to 7° or 8° in nearly all other parts of the Kingdom. During the earlier days of the period the shade minima at all the more inland stations were below the freezing point, the lowest readings reported being 23° at Durham and 24° at York and Newton Reigny. At other inland places they ranged from 25° to 29°, but in the "Channel Islands" the lowest reading was 40°. The highest of the maxima were recorded on the 23rd, when the thermometer rose to between 57° and 63°. On the 17th and 18th the maxima in many parts of the Kingdom did not exceed 45°.

Rainfall has been much more than the mean in most of the English districts, as well as in "Ireland S." and the "Channel Islands," but rather less over Scotland and in "Ireland N.," the amount recorded over the English districts was from two to nearly three times the mean.

Bright Sunshine has exceeded the mean in Scotland, but has been below it over England and Ireland. The percentage of the possible duration varied from 24 to 33 over England, from 34 to 39 in Ireland, from 41 to 44 in Scotland, and was as high as 48 in the "Channel Islands."

Barometer and Wind.—During the earlier portion of the week a rather complex depression moved eastwards over the south of England and afterwards in a northerly direction over the North Sea, the prevailing winds consequently being North-Easterly to North-Westerly. During the passage of this disturbance several local irregularities in pressure appeared in different parts of the Kingdom, but no definite depression passed immediately over us, although on the 21st another system moved from the north-east of France to the south of Norway. At the end of the week a depression was advancing to Ireland from the Atlantic and the wind had shifted to the Southward very generally.

* This value has been altered owing to the receipt of further information.

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213 370 5 | 91 1896

II.—DATA from which the SUMMARY on page 115 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	51	32	49·1	37·3	42·9	− 2·7	26	13	6	0·49	+0·10	*	*	*	*
	Stornoway	53	29	49·0	33·6	40·8	− 6·7	20	31	6	0·41	−0·19	51·3	+9·3	44	+ 8
	Wick	58	30	52·9	34·1	42·9	− 4·7	39	22	3	0·43	+0·04	*	*	*	*
	Lairg S	57	25	49·9	34·0	41·5	− 6·6	22	30	5	0·53	+0·03	*	*	*	*
	Glencarron S	60	28	51·6	35·0	42·8	− 4·7	35	20	6	1·09	+0·01	*	*	*	*
	Fort Augustus S	60	30	51·8	37·9	44·4	− 4·0	34	11	4	0·56	+0·10	37·5	?	32	?
	Fort William S	57	32	53·6	37·1	44·9	− 4·8	41	14	2	0·06	−0·77	55·6	?	48	?
1. SCOTLAND, E.	Nairn	57	30	52·3	33·3	43·8	− 5·9	37	16	6	0·60	+0·24	*	*	*	*
	Aberdeen	52	29	49·6	37·0	42·9	− 5·8	27	14	5	0·71	+0·26	59·2	+14·8	51	+13
	Braemar S	55	28	49·6	34·5	41·6	− 4·9	21	28	2	0·31	−0·21	43·5†	? †	38†	?†
	Ochtertyre S	63	33	57·1	34·7	45·2	− 3·7	53	20	5	0·39	−0·17	*	*	*	*
	Leith	58	32	54·1	37·7	45·4	− 5·0	42	12	0	—	−0·38	*	*	*	*
	Marchmont S	57	28	51·4	33·5	41·9	− 6·6	26	32	2	0·09	−0·43	56·8	?	41	?
2. ENGLAND, N.E.	Alnwick Castle	51	34	47·7	36·4	41·7	− 6·6	16	21	1	0·20	−0·25	*	*	*	*
	Durham	58	23	52·3	31·4	41·2	− 8·0	29	40	3	0·27	−0·18	37·1	−3·7	33	− 3
	Shields	52	29	49·1	34·3	41·3	− 7·7	20	29	2	0·14	−0·25	*	*	*	*
	Scarborough M	53	28	48·7	35·5	41·7	− 8·2	19	25	5	0·73	+0·28	*	*	*	*
	York	59	24	52·7	33·4	42·5	− 8·7	40	24	5	0·43	−0·02	34·7	−7·5	31	− 7
	Spurn Head	54	34	49·6	39·9	44·5	− 5·8	26	6	5	0·51	+0·16	*	*	*	*
3. ENGLAND, E.	Hillington M	59	28	52·2	36·3	43·8	− 7·6	37	16	3‡	1·19‡	+0·77‡	26·3	−21·7	21	−20
	Yarmouth	53	32	49·3	38·1	43·4	− 7·3	26	11	7	1·83	+1·41	*	*	*	*
	Geldeston	58	28	51·7	36·7	43·8	− 7·6	35	15	7	1·63	+1·23	28·3	−24·0	26	−21
	Cambridge	60	30	54·1	36·6	44·8	− 7·6	42	15	6	1·28	+0·83	23·3	−22·9	21	−20
	Rothamsted	57	30	53·6	36·7	44·6	− 6·5	40	15	5	0·89	+0·39	27·5	?	25	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	59	26	52·1	36·3	43·7	− 7·7	36	16	5	1·17	+0·69	*	*	*	*
	Loughborough	59	32	52·4	36·1	43·8	− 8·6	37	17	5	0·82	+0·34	*	*	*	*
	Stamford (Ketton Hall)	60	29	52·3	35·6	43·5	− 8·0	37	18	5	1·00	?	*	*	*	*
	Cheadle M	57	31	50·0	35·3	42·2	− 7·2	30	19	6	1·22	+0·67	*	*	*	*
	Churchstoke M	59	28	51·0	32·4	41·1	− 8·4	25	36	6	1·18	+0·68	28·3	−14·7	26	−13
	Hereford M	60	28	54·2	33·9	43·4	− 8·9	44	23	6	1·13	+0·65	*	*	*	*
	Cirencester	56	27	50·7	33·9	41·8	− 9·0	24	31	7	1·80	+1·30	27·2	−18·0	25	−16
	Oxford	59	30	51·6	37·7	44·2	− 8·2	33	12	7	1·11	+0·65	25·2	−18·8	23	−17
5. ENGLAND, S.	London	61	31	54·1	39·4	46·3	− 7·1	41	7	6	1·20	+0·77	24·4†	−18·0 †	22†	−18†
	Strathfield Turgiss M	59	29	55·2	37·6	45·9	− 6·5	46	12	7	1·26	+0·86	*	*	*	*
	Dungeness	56	31	53·3	41·1	46·8	− 5·7	37	3	6	1·69	+1·29	*	*	*	*
	Hastings (St. Leonards)	54	32	52·1	40·5	46·0	− 7·1	34	4	6	1·69	+1·23	48·0	− 6·6	44	− 7
	Southampton	60	31	55·3	39·3	46·8	− 6·8	45	8	7	1·18	+0 67	37·9	−10·7	35	− 9
	Hurst Castle	55	33	53·0	40·7	46·5	− 6·2	37	4	7	1·07	+0·65	*	*	*	*
	Stowell M	57	31	51·7	36·3	43·5	− 7·9	34	16	6	1·33	?	22·8†	?†	21†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart)	58	32	54·3	37·7	45·7	− 4·5	44	12	6	0·36	−0·55	*	*	*	*
	Glasgow	55	33	53·0	37·5	44·8	− 5·5	39	13	4	0·41	−0·14	44·5	+ 8·3	39	+ 7
	Ardrossan	57	35	53·9	37·9	45·4	− 5·2	41	11	1	0·14	−0·40	*	*	*	*
	Glenlee S	56	26	52·9	30·0	40·9	− 8·1	31	46	4	0·21	−0·46	*	*	*	*
	Douglas (Isle of Man)	56	28	51·8	35·6	43·2	− 7·3	35	18	4	0·26	−0·23	55·2	+ 4·1	49	+ 3
7. ENGLAND, N.W.	Newton Reigny	58	24	52·1	33·9	42·5	− 5·7	38	23	2	0·31	−0·15	50·0	+ 4·6	44	+ 2
	Stonyhurst	59	26	51·8	35·2	43·0	− 7·6	36	19	5	0·60	0·00	33·9	−10·4	30	− 8
	Blackpool M	55	35	51·6	38·2	44·5	− 6·7	33	11	2	0·58	+0·10	30·5	−15·5	27	−14
	Manchester	60	30	52·1	36·7	43·9	− 6·6	36	15	5	0·62	+0·05	*	*	*	*
	Liverpool Obsy. (Bidston)	60	31	52·7	38·6	45·2	− 6·6	37	10	5	0·40	−0·03	*	*	*	*
	Llandudno M	58	32	50·1	39·0	44·2	− 7·7	28	8	5	0·78	+0·36	32·8	−10·8	30	−10
	Holyhead	54	38	51·0	39·7	45·0	− 6·6	31	6	4	0·17	−0·26	*	*	*	*
8. ENGLAND, S.W.	Llandovery	58	27	53·9	32·1	42·4	− 9·1	44	28	6	1·37	+0·73	*	*	*	*
	Pembroke	54	37	50·1	39·4	44·4	− 6·3	28	7	6	0·92	+0·47	39·3	− 9·8	36	− 9
	Arlington (N. Devon)	56	30	49·9	34·9	42·0	− 8·3	22	20	6	1·96	+1·27	*	*	*	*
	Cullompton M	56	29	52·9	35·5	43·7	− 8·0	39	18	7	1·48	+1·00	24·4	−20·5	22	−19
	Falmouth	55	37	52·4	39·3	45·5	− 6·7	36	8	5	1·12	+0·51	39·0	−10·6	36	−10
	Plymouth	61	36	57·4	40·3	48·3	− 2·2	51	5	4	1·30	+0·85	31·8	−15·2	29	−15
	Prawle Point	53	35	50·4	39·6	44·7	− 7·0	29	7	4	0·65	+0·30	*	*	*	*
9. IRELAND, N.	Malin Head	52	35	49·1	40·3	44·4	− 7·2	24	5	2	0·04	?	*	*	*	*
	Londonderry	63	34	54·7	40·0	46·9	− 4·8	43	6	4	0·18	−0·36	*	*	*	*
	Mullaghmore	54	36	50·3	39·3	44·5	− 7·4	29	8	5	0·23	−0·36	*	*	*	*
	Belmullet	52	37	49·7	40·3	44·7	− 7·7	26	5	7	1·04	?	*	*	*	*
	Markree Castle	56	28	50·5	32·9	41·2	− 8·2	24	34	5	0·54	+0·09	46·8	+ 4·1	42	+ 5
	Brookeborough	58	29	52·2	32·3	41·7	− 8·4	29	37	5	0·95	+0·37	*	*	*	*
	Armagh	59	30	52·5	34·2	42·8	− 7·8	38	22	6	0·32	0·13	32·2	− 9·8	29	− 9
	Donaghadee	53	35	51·7	42·3	46·7	− 3·9	33	0	5	0·16	−0·35	*	*	*	*
	Edgeworthstown	57	30	51·1	33·9	42·1	− 8·1	35	23	5	0·74	+0·14	*	*	*	*
10. IRELAND, S.	Dublin	57	33	52·9	37·9	45·0	− 7·3	38	11	4	0·67	+0·23	49·3	+ 1·1	44	0
	Parsonstown	56	29	51·7	34·3	42·5	− 8·9	36	22	7	0·67	+0 16	26·8	−15·6	24	−15
	Kilkenny	57	33	51·9	34·6	42·7	− 9·2	36	21	7	1·28	+0·82	*	*	*	*
	Waterford	57	32	51·6	35·4	44·4	− 8·0	45	18	7	1·67	+1·13	*	*	*	*
	Roche's Point	57	38	53·0	40·1	46·2	− 6·6	37	5	4	1·26	+0·56	*	*	*	*
	Valencia	55	37	53·3	39·9	46·2	− 6·3	38	6	5	1·24	+0·54	52·7	+ 4·9	48	+ 4
	Killarney	55	33	51·3	35·0	42·7	− 8·7	34	20	7	1·81	?	*	*	*	*
	Foynes	59	36	54·2	40·0	46·7	− 5·1	41	6	6	0·85	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	55	40	52·0	44·0	47·8	− 3·9	41	0	5	0·72	+0·34	*	*	*	*
	Jersey	57	42	54·1	44·1	48·8	− 4·7	48	0	5	1·63	+1·22	51·1	−4·6	48	− 4

Stations marked M are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

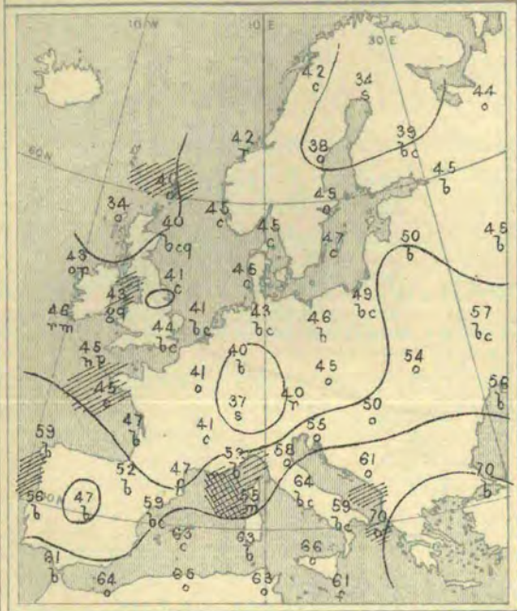
† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

‡ The corresponding values in last week's Report should read "3," "0·36," and "−0·06."

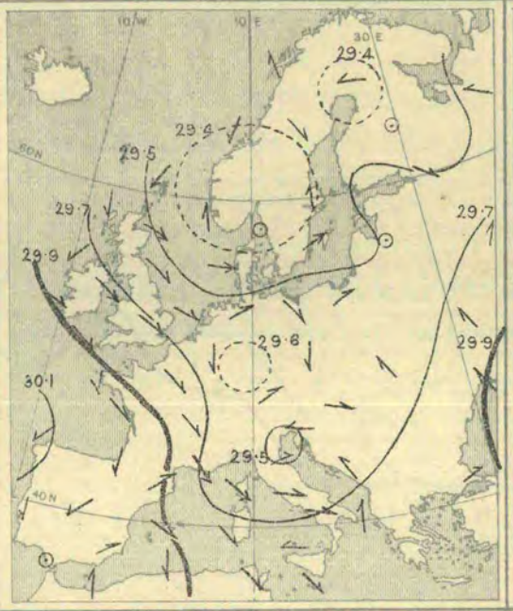
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 17th May.

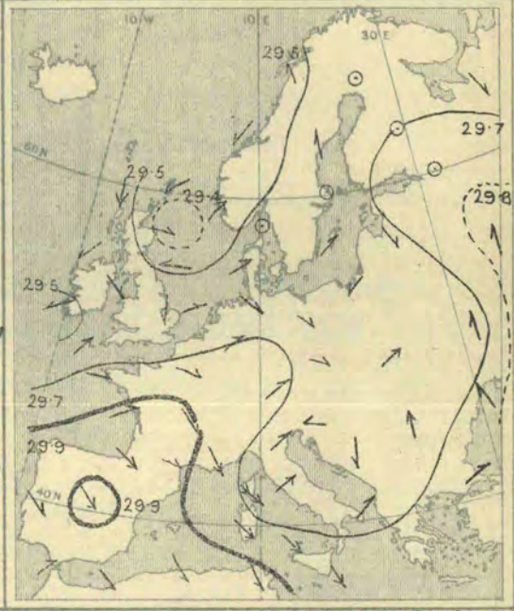
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather showery in the west of our Islands, with hail or sleet in many places; rainy over western and southern Germany; snow reported in Lapland, and also at Belfort. Fine in nearly all other parts of Europe, but dull over northern Italy, as well as in Algeria. Showers of hail or snow falling during day in many parts of the United Kingdom, and heavy rain setting in over the southern districts at night. Considerable amounts of rain falling also in Austria, and thunderstorms occurring in Saxony.

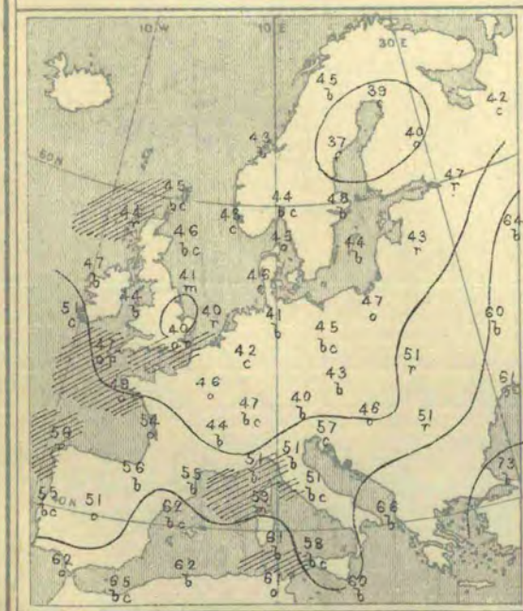
Temperature highest, 70° at Brindisi, 67° at Sfax, 66° at Palermo, and 65° at Algiers; above 60° over the central and southern parts of the Mediterranean generally. Lowest, 34° at Haparanda and Stornoway, 36° at Wick, and 37° at Donaghadee, Liverpool, Loughborough, and Belfort; below 45° in nearly all parts of northern and north-western Europe. Daily maxima over our Islands below 50°, excepting in the extreme south; thermometer reaching 70° or more over southern Europe and exceeding 80° in Algeria and the south of Italy.

Wind moderate or fresh from the North-Westward over the greater part of our Islands and France, Westerly to Southerly in Italy; Westerly or South-Westerly over Denmark, north Germany, and the Baltic. Light and variable in Scandinavia, and also over the greater part of central Europe; light from the Southward in Russia and Algeria; moderate from North or North-East in Spain. Subsequently backing to the Westward or South-Westward over the Channel and Bay of Biscay; very strong winds from between South-West and North-West setting in over Italy and the south of France.

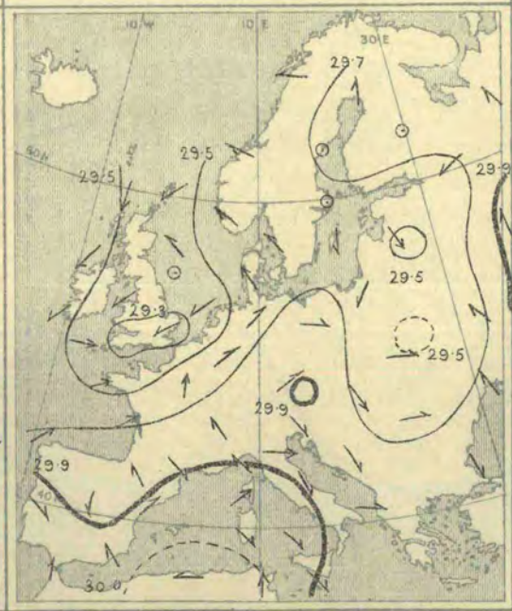
Barometer highest, 30·1 ins. and upwards in an anticyclone lying off the north-west of Spain, 29·9 ins. and upwards in another system lying over the south of Russia. Lowest, 29·4 ins. and less in a large depression over the southern parts of Scandinavia, and also in a smaller one over Lapland; 29·5 ins. and less in two systems lying over Austria and the Adriatic. New disturbance appearing later off the south of Ireland, and barometer falling quickly on our south-west coasts generally.

Monday, 18th May.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

Weather dull and rainy over the south and east of England and the north of France, as well as over the Gulf of Finland, the Baltic Provinces, and some parts of Austria. Fair or fine in most other parts of Europe, but cloudy in places. Some improvement taking place later over England and France, but rain setting in over the Netherlands, Germany, and the eastern shores of the North Sea.

Temperature highest, 66° at Brindisi, 65° at Oran, and 62° at Barcelona, San Fernando, and Algiers; above 55° at most of the Mediterranean stations, but below that point over northern Italy and the south of France. Lowest, 36° at Oxford, 37° at Hernösand and Cambridge, 38° at Loughborough, and 39° at Haparanda; below 45° over nearly the whole of central, northern, and north-western Europe. Daily maxima exceeding 50° in the western and northern parts of the United Kingdom, but thermometer remaining below 45° at some of our eastern and south-eastern stations. Exceeding 70° in Spain, Algeria, and the south of Italy, the highest reading of all being 82° at Brindisi.

Wind light from the Northward or North-Eastward over the greater part of the United Kingdom, but strong on our extreme north-west coasts; moderate to strong from the Westward or South-Westward over the Channel and France; South-Easterly on the eastern shores of the North Sea. Moderate from the Northward or North-Westward over Italy, Austria, and eastern Germany, but light from the Southward in Russia, as well as in Algeria. Subsequently backing to the Northward in the extreme south and south-east of England.

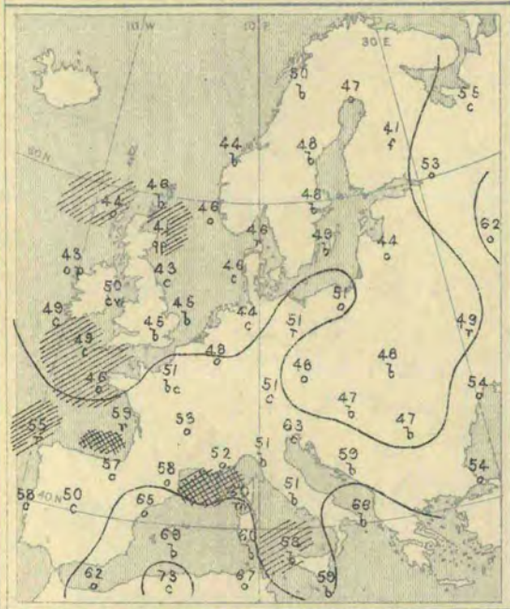
Barometer highest, 29·9 ins. to 30·0 ins., or a little more, over Algeria, the south of Spain, and the western parts of the Mediterranean, as well as over central Russia. Lowest, 29·3 ins. and less in an elongated depression lying over the Channel and south of England; 29·6 ins. to 29·5 ins. and less in another disturbance stretching southwards from the Baltic Provinces to Galicia. Both depressions moving later in a north-easterly direction; barometer rising in all parts of our Islands, but falling on the eastern shores of the North Sea.

Judd & Co. Lith. 73 & 75 Farringdon Rd & Doctors' Commons

III.—SUMMARY OF WEATHER OVER EUROPE.

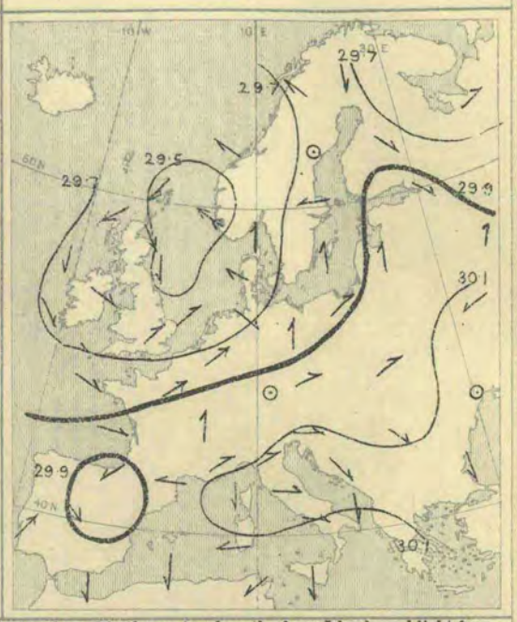
Tuesday, 19th May.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.



Weather showery in the western and northern parts of the United Kingdom, but fine in the east and south, as well as over Scandinavia, Austria, Italy, and the Mediterranean. Dull over northern and central Russia, and also in Algeria; rainy at several of the Danish, German, French, and Spanish stations. Showers falling during day over the whole of western Europe, and thunder occurring at Spurn Head and Cuxhaven.

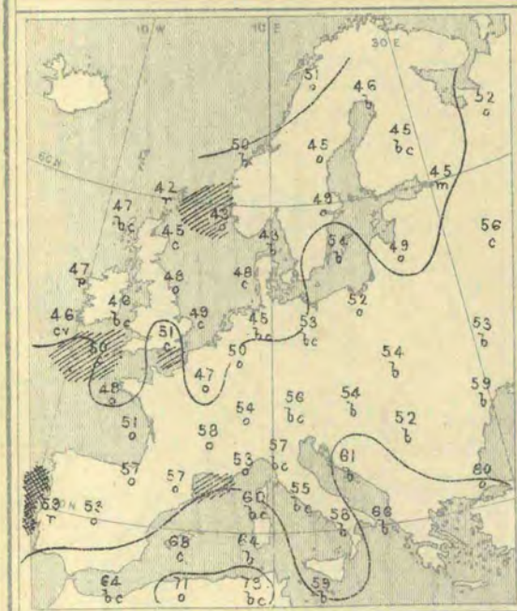
Temperature highest, 73° at Algiers, 69° at Palma, 67° at La Calle, 66° at Brindisi, and 65° at Barcelona and Tunis; above 60° over central Russia and the central and southern parts of the Mediterranean generally, but below 55° on its northern shores. Lowest, 41° at Kuopio, Hangö, and Aberdeen, 42° at Malin Head, and 43° at Shields, Belmullet, Mullaghmore, Pembroke, and Oxford; below 50° in nearly all parts of northern, north-western, and central Europe. Daily maxima a little above 55° over central England, but below that point in most other parts of the United Kingdom. Exceeding 60° at several of the French stations and reaching 80° or more in Algeria and the south of Italy.

Wind moderate to fresh from the Northward in the west and north of our Islands, and light from the same quarter in the south-east of England. Southerly or South-Westerly over France, Spain, Germany, and the Netherlands; South-Easterly on the eastern shores of the North Sea, with a gale at Skudesnaes. Light from the North-Eastward in Lapland, from the Westward over the Gulf of Finland, and from the Southward in Russia. Variable over Austria, Italy, and Algeria. Strong breeze from the South-Westward setting in later over the eastern part of the Channel.

Barometer highest, 30·2 ins. and upwards in an anticyclone lying over Sicily and the adjacent parts of the Mediterranean. Lowest, (1) 29·4 ins. and less in a large depression lying over the North Sea; (2) 29·6 ins. and less in another disturbance lying over Finland; (3) 29·8 ins. and less in a shallow system lying over the south of Russia, near Kiev. Depression over North Sea filling up gradually during day. Very shallow disturbance appearing over Spain and the south-west of France in evening.

Wednesday, 20th May.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.

Weather fair over the greater part of the United Kingdom, but showery at some of our western and southern stations. Dull in France and Spain, with rain at Coruna and Lisbon. Fine in most other parts of Europe. Showers falling later in nearly all parts of the United Kingdom, with a thunderstorm at Pembroke. Heavy rain setting in over France and the extreme south of England at night. Lightning seen at Biarritz.

Temperature highest, 73° at La Calle, 71° at Algiers, 70° at Tunis, and 68° at Palma; above 60° at most of the Mediterranean and Adriatic stations, but below 55° in the Riviera. Lowest, 42° at Sumburgh Head, 43° at Ulleaborg, Skudesnaes, and the Scaw, and 44° at Hangö and Faerder; below 50° in nearly all parts of northern and north-western Europe. Daily maxima over our Islands below 55° at all but the central and southern stations; thermometer exceeding 70° in most parts of southern Europe, and exceeding 80° in Algeria, the highest reading of all being 90° at Biskra and Laghouat.

Wind light or moderate from the Northward (North-West to North-East) in Ireland and Scotland, but Southerly or South-Westerly over England, France, Spain, and the greater part of central Europe, and South-Easterly in Scandinavia. Variable in Russia and Austria; light and variable in Spain and Algeria. No important change occurring during day, excepting on the east coasts of Great Britain, where the wind shifted to the Southward or South-Eastward.

Barometer highest, 30·2 ins. and upwards in an anticyclone lying over the Black Sea and south of Russia. Lowest, 29·5 ins. and less in a depression lying between the Scotch and Norwegian coasts, 29·7 ins. and less in another disturbance lying off the north-west of Spain. Shallow depressions forming over our western coasts during day; disturbance off the Spanish coast moving eastwards to the Bay of Biscay and the west of France.

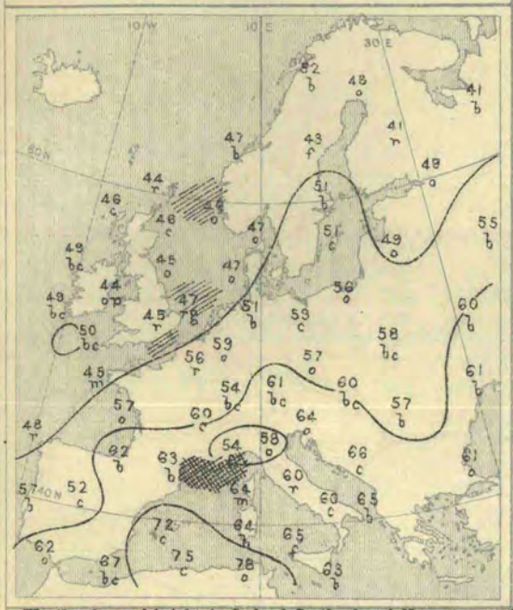
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons

III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 21st May.

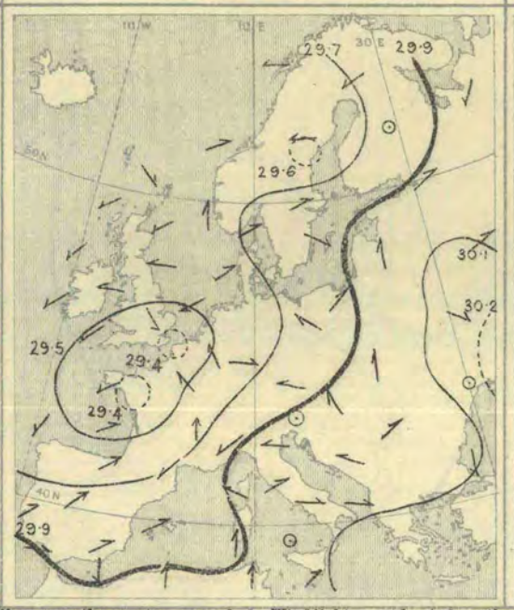
Temperature and Weather.

8 a.m.



Barometer and Wind.

8 a.m.



6 p.m.

Weather fine and bright in Ireland, Scotland, and Norway, as well as over the greater part of Algeria and eastern Europe; cloudy or overcast elsewhere, with rain over France and the south-east of England, as well as at Rome and Corunna. Rainy weather extending later to the northern parts of England and Ireland, and thunderstorms occurring in various parts of western Europe. Heavy rain falling at many of the French stations, and also at Lisbon, the largest amount being 1·7 ins. at Besançon.

Temperature highest, 78° at La Calle, 75° at Algiers, 72° at Palma, 71° at Tunis, and 68° at Barcelona; above 60° at most of the Mediterranean stations, and also in the extreme south of Russia. Lowest, 41° at Archangel, Kuopio, and Helsingfors, 43° at Hernösand, and 44° at Hangö and Holyhead; below 50° in nearly all parts of our Islands and northern Europe. Daily maxima a little below 50° in the east of England, thermometer exceeding 70° at several of the French and German stations, and exceeding 80° in Algeria and some parts of Italy and Austria.

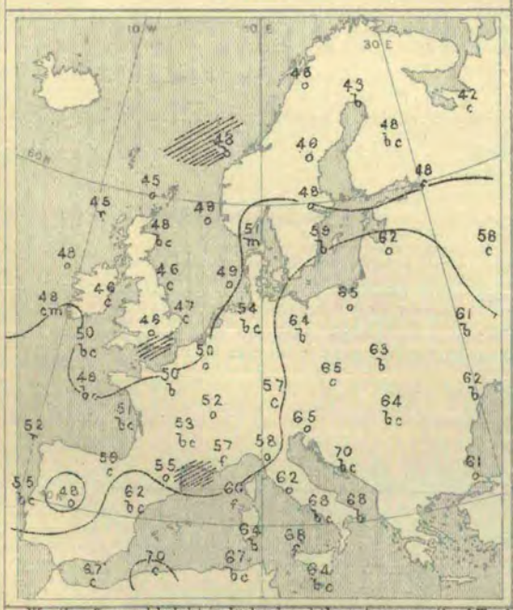
Wind light or moderate from the North-Eastward over the greater part of our Islands, but fresh or strong in force in the south-east of England. Moderate to strong from the South-Westward over Spain and the western and central parts of France; light from the South-Eastward over Germany and the Netherlands; Southerly over Denmark, the Baltic, and the south of Scandinavia. Light North-Westerly in the south of Russia. Westerly in Italy, Southerly in Algeria. Subsequently veering to the Westward or North-Westward in the west of France, and increasing to a gale at Biarritz.

Barometer highest, 30·2 ins. and upwards in an anticyclone lying over the south of Russia. Lowest, 29·35 ins. to 29·50 ins. in a complex depression with two minima lying over France, the Netherlands, and the south and east of England; 29·6 ins. and less in a large shallow system lying off the west of Norway. Former disturbance subsequently travelling north-eastwards, and barometer rising in most parts of our Islands and France.

Friday, 22nd May.

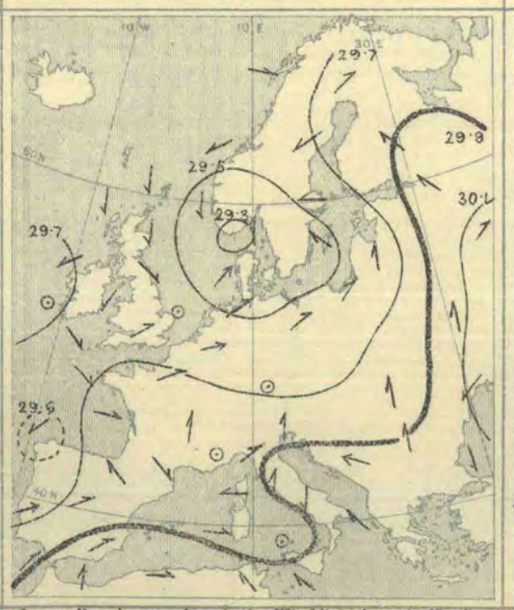
Temperature and Weather.

8 a.m.

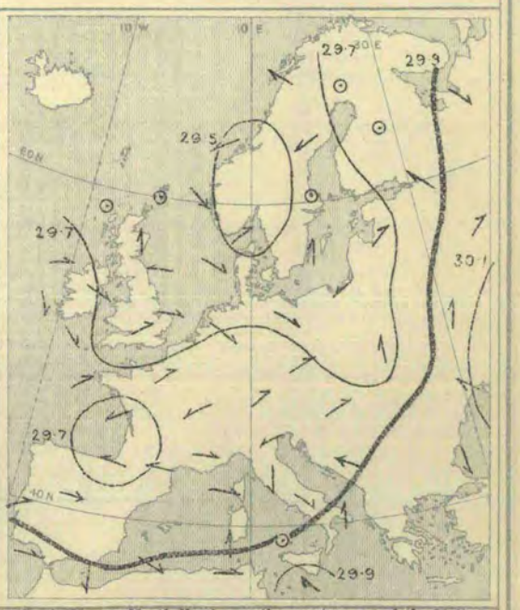


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine and bright in Ireland and the extreme south of England, as well as in several parts of France, Italy, and eastern Europe. Cloudy elsewhere, with rain over central England, at Helsingfors, Faerder, Leghorn, and Corunna. Fog reported at several of the Mediterranean stations. Showers falling later in many parts of the United Kingdom; thunderstorms occurring in the south of Ireland and the south-west of England. Heavy rain at some of the German stations.

Temperature highest, 70° at Lésina and Algiers, 68° at Naples, Brindisi, and Palermo, and 67° at Oran and La Calle; above 60° at most of the Mediterranean and Adriatic stations, as well as over Austria, eastern Germany, and the south of Russia. Lowest, 42° at Archangel and Loughborough, 43° at Haparanda, and 44° at Hangö and Oxford; below 50° over the greater part of northern and north-western Europe. Daily maxima below 50° over central England, but a little above 55° at some of our extreme northern and southern stations. Exceeding 60° during day in most parts of France, exceeding 70° over the greater part of central and southern Europe, and reaching 80° or more at some of the Algerian stations.

Wind light from the Northward (North-West to North-East) over the greater part of the United Kingdom and from the Westward in France. Moderate to strong from the South-Westward over Denmark and western Germany, light from the Southward over Russia and eastern Germany; Easterly in Scandinavia. Light or moderate from the South-Westward in Spain, and from the South-Eastward in Italy and Algeria. Subsequently falling light and variable on the east coasts of Great Britain; shifting to the Eastward in the west of France.

Barometer highest, 30·2 ins. and upwards in an anticyclone lying over central and southern Russia, and exceeding 29·9 ins. over Algeria. Lowest, 29·3 ins. and less in a small depression lying over the north of Denmark, 29·6 ins. and less in another system over the north-west of Spain. Former disturbance subsequently moving northwards; latter system advancing north-eastwards to the south-west of France. Barometer rising slowly over the United Kingdom, but falling in France.

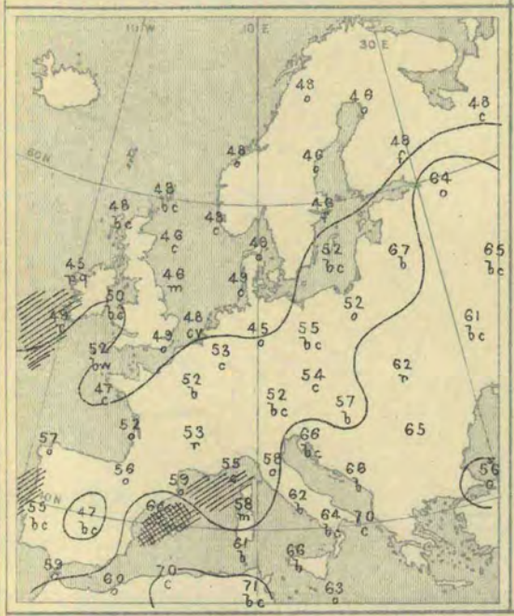
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 23rd May.

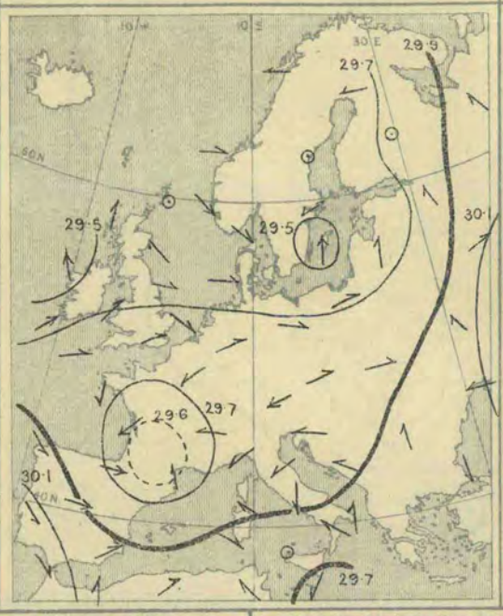
Temperature and Weather.

8 a.m.

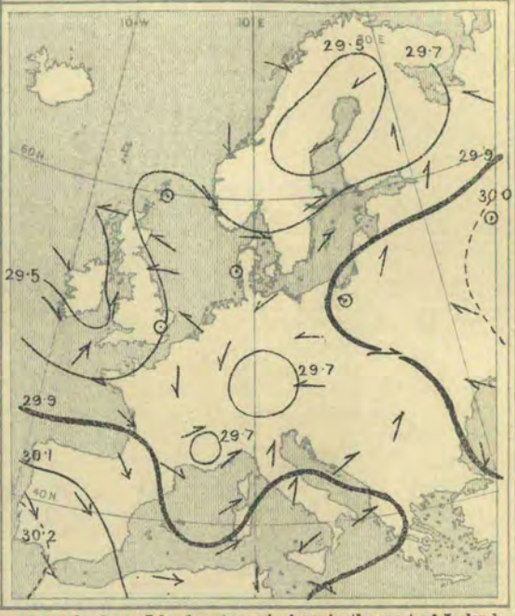


Barometer and Wind.

8 a.m.



6 p.m.



Weather fair over Great Britain and the north of France, as well as over Russia, the Baltic, western Germany, and the greater part of southern Europe. Dull in Ireland, with rain in the west: cloudy and unsettled in Scandinavia, eastern Germany, Austria, and the southern parts of France. Rainy weather extending later over all the more western and southern parts of the United Kingdom; thunderstorms and heavy rain in the south of France.

Temperature highest, 71° at La Calle, 70° at Brindisi and Algiers, and 67° at Riga and Sfax; above 60° at nearly all the Mediterranean and Adriatic stations, as well as over the greater part of Russia. Lowest, 41° at Loughborough, 43° at Oxford and Parsonstown, and 45° at Hangö, Mullaghmore, Belmullet, and Munster; below 50° in nearly all parts of north-western Europe. Rising during day to between 55° and 60° in many parts of Great Britain, but remaining below 55° in Ireland. Exceeding 70° over southern and eastern Europe, and reaching 80° or more in Tunis and eastern Algeria.

Wind Southerly in the west and north of our Islands; strong in force in the west of Ireland. Light from the Westward on our east coasts and moderate from the same quarter or from South-West over the Netherlands, Denmark, Germany, and the Baltic. Moderate to strong from West and North-West in Spain; light from South-East in the south of France and from North-East in the north of that country. Variable in Austria, Italy, and Algeria. Subsequently veering to the North-Westward in the south of Ireland, but shifting to the Eastward or South-Eastward over Great Britain.

Barometer highest, 30·2 ins. and upwards in a large anticyclone lying over the south of Russia, 30·1 ins. and upwards in another system lying to the south-westward of the Spanish Peninsula. Lowest, 29·5 ins. and less in a depression lying off the west of Ireland, and also in another disturbance lying over the Baltic; 29·6 ins. and less in a third system lying over the southern parts of France. Shallow secondary disturbance appearing later near the mouth of the St. George's Channel and spreading eastwards.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The atmospherical conditions experienced during the past week have been exceedingly disturbed over all the north-western parts of Europe, and decidedly changeable and unsettled in the more central countries. Temperature has been low generally, with sharp ground frosts over the inland parts of the United Kingdom.

During the greater part of the time the highest pressures have been reported in an anticyclone lying over Russia. The barometer has, however, been relatively high over the Mediterranean; while a tendency for anticyclonic conditions has been occasionally shown in the far northern districts, such as Lapland and northern Russia. Several depressions have appeared over our Islands and their neighbourhood, the most important being—(1) a shallow system which advanced westwards from Scandinavia to our northern coasts on the 17th, and which occasioned strong North-Westerly winds, with showers of hail or sleet in many parts of the Kingdom; (2) a well-marked depression which travelled eastwards across the south of England on the 18th, andwhich subsequently passed away in a northerly direction over the North Sea; (3) a complex system which advanced from the north-west of Spain to the south-east of England on the 20th and 21st, and which subsequently travelled away to Scandinavia; and (4) a depression which appeared off the west of Ireland on the morning of the 23rd, and which afterwards spread eastwards over England. The passage of the three last-mentioned disturbances was attended by heavy rain over England and France, with thunderstorms in many places. The winds over north-western Europe have varied greatly in direction, but in the more eastern countries the prevailing current has been a light one from the South-Eastward or Southward.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 116.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	43·8	?	38	?	EASTBOURNE	46·6	?	43	?
OSWALDKIRK (Yorkshire)	34·2	?	30	?	TORQUAY	31·2*	?	29*	?
WORKSOP	31·7	− 7·6	29	− 7	ARLEY COTTAGE (County Cavan)	33·2	?	30	?
THURCASTON (Leicestershire)	26·8	−13·7	24	−12					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 21.] *Third Series.* WEEK ENDING SATURDAY, 30TH MAY, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10*s.* 0*d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 122.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	**0.** SCOTLAND, NORTH -	63	33	52·0	40·7	46·0	3 below.	33	−16	4	0	359	+ 19	617	+ 79
	1. SCOTLAND, EAST -	63	31	53·4	40·6	46·7	5 below.	39	−24	4	+ 2	397	− 68	666	+ 98
	2. ENGLAND, N.E. - -	66	38	52·8	42·5	47·3	4 below.	37	−27	0	− 2	353	− 94	593	+ 95
	3. ENGLAND, EAST -	65	38	55·8	42·4	48·6	4 below.	46	−33	0	− 2	479	− 97	689	+128
	4. MIDLAND COUNTIES	67	34	55·3	41·0	47·7	5 below.	44	−35	3	+ 1	521	− 82	668	+117
	5. ENGLAND, SOUTH -	65	37	55·8	43·8	49·5	5 below.	53	−34	0	0	541	−110	565	+149
Principal Grazing, &c., Districts.	**6.** SCOTLAND, WEST -	61	35	55·7	41·8	48·4	3 below.	46	−21	1	0	464	− 21	464	+ 48
	7. ENGLAND, N.W. -	63	35	54·1	43·1	48·2	4 below.	43	−29	0	− 1	461	− 42	451	+ 37
	8. ENGLAND, S.W. -	66	37	55·1	42·4	48·4	5 below.	45	−32	0	0	557	− 71	434	+118
	9. IRELAND, NORTH -	62	30	54·5	42·3	48·0	4 below.	42	−26	0	0	516	− 55	390	+ 28
	10. IRELAND, SOUTH -	63	33	55·7	42·5	48·7	5 below.	47	−28	0	0	664	− 33	309	+ 32
	— CHANNEL ISLANDS -	60	42	55·1	46·4	50·4	4 below.	59	−24	0	0	672	− 58	162	+ 40

Rainfall.

	DISTRICTS. (See p. 122.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	**0.** SCOTLAND, NORTH -	6	8	1 more.	97	− 1	18·6	+ 0·2
	1. SCOTLAND, EAST -	6	8	4 more.	62	−17	8·1	− 3·4
	2. ENGLAND, N.E. - -	5	12	8 more.	69	− 5	7·1	− 1·9
	3. ENGLAND, EAST -	5	9	4 more.	71	− 2	7·2	− 1·7
	4. MIDLAND COUNTIES-	5	9	3 more.	65	− 6	8·1	− 2·1
	5. ENGLAND, SOUTH -	5	7	3 more.	62	− 8	8·7	− 1·5
Principal Grazing, &c., Districts.	**6.** SCOTLAND, WEST -	4	5	1 less.	70	−14	12·3	− 6·4
	7. ENGLAND, N.W. - -	4	5	1 more.	59	−18	7·5	− 4·2
	8. ENGLAND, S.W. - -	5	6	0 (average)	62	−16	10·7	− 4·1
	9. IRELAND, NORTH -	5	7	2 more.	77	−12	9·2	− 3·7
	10. IRELAND, SOUTH -	5	9	3 more.	70	−13	9·7	− 5·6
	— CHANNEL ISLANDS -	5	6	2 more.	68	−18	9·4	− 2·8

Bright Sunshine.

	DISTRICTS. (See p. 122.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	**0.** SCOTLAND, NORTH -	32	0	27	0	513	+ 38	29	+ 1
	1. SCOTLAND, EAST -	25	−14	21	−13	555	+ 25	32	+ 1
	2. ENGLAND, N.E. - -	22	−21	19	−17	503	+ 28	29	+ 1
	3. ENGLAND, EAST -	26	−22	23	−19	550	− 14	32	− 1
	4. MIDLAND COUNTIES-	28	−15	25	−12	521	+ 23	30	+ 1
	5. ENGLAND, SOUTH -	40	−11	36	−11	577	+ 48	33	+ 2
Principal Grazing, &c., Districts.	**6.** SCOTLAND, WEST -	34	−11	30	− 8	562	+ 50	32	+ 2
	7. ENGLAND, N.W. - -	29	−17	25	−15	510	+ 9	29	0
	8. ENGLAND, S.W. - -	48	0	43	0	652	+ 55	37	+ 2
	9. IRELAND, NORTH -	33	− 4	29	− 4	559	+ 53	32	+ 3
	10. IRELAND, SOUTH -	36	− 9	32	− 9	614	+ 31	35	+ 1
	— CHANNEL ISLANDS -	50	− 6	46	− 5	803	+ 98	46	+ 5

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather continued cold, unseasonable, and rainy very generally until the end of the period, when the conditions improved somewhat. Thunder and lightning were experienced during the week in nearly all parts of the Kingdom.

Temperature has remained below the mean, but the deficit (3° to 5°) has not been so great as that of the preceding week. The highest of the maxima were recorded during the 30th, and ranged from 67° in the "Midland Counties" to 61° in "Scotland N." and 60° in the "Channel Islands." During the earlier days of the period the daily maxima were in many cases below 50° The lowest of the minima, which were generally registered on the 26th, varied from 30° in "Ireland N." and 31° in "Scotland E." to 38° in the east and north-east of England and to 42° in the "Channel Islands."

Rainfall has been a little less than the mean in "Scotland W." and about equal to it in "England S.W.;" in all other districts an excess is shown, that in "England N.E," being large.

Bright Sunshine has been less prevalent than it was last week in most districts, but in the south and south-west of England there has been a slight increase. The percentage of the possible amount of duration ranged from 46 in the "Channel Islands" and 43 in "England S.W." to 21 in "Scotland E." and 19 in "England N.E."

Barometer and Wind.—During nearly the whole of this period the weather over our Islands has been influenced by a depression, the centre of which appeared over our south-west coasts on the 24th. After moving eastwards over the south of England and north-eastwards to the North Sea, where it remained stationary for a time, the system entirely changed its course and travelled slowly westwards over the northern parts of England and Ireland, and finally disappeared over the Atlantic during the night of the 29th. South-Westerly and Westerly winds of little strength have consequently prevailed over all our southern districts and South-Easterly and Easterly breezes in the north. At the close of the week other depressions were advancing towards us from the southward and the wind was moderate or light from between South-East and South.

607 1 | 90 J. & Co.
213 370 6 | 91 1896

II.—DATA from which the SUMMARY on page 121 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ℌ	51	39	48·9	41·3	44·9	− 1·8	23	2	6	1·17	+0·77	*	*	*	*
	Stornoway ℌ	57	36	50·9	39·9	45·1	− 3·6	31	6	4	0·51	−0·11	41·7	−0·2	35	0
	Wick ℌ	[illegible]	33	51·3	41·0	45·8	− 2·9	31	3	7	1·05	+0·65	*	*	*	*
	Lairg ℌ	59	35	52·1	39·6	45·5	− 4·0	35	7	6	0·55	+0·05	*	*	*	*
	Glencarron ℌ	61	36	52·9	40·0	46·1	− 2·8	37	6	6	0·95	−0·16	*	*	*	*
	Fort Augustus ℌ	62	38	52·8	42·0	47·1	− 2·7	36	0	5	0·58	+0·11	23·1	?	20	?
	Fort William ℌ	63	37	55·0	41·3	47·7	− 3·6	43	2	5	0·44	−0·41	31·9	?	27	?
1. SCOTLAND, E.	Nairn ℌ	63	31	54·3	40·1	46·9	− 1·0	42	5	6	0·78	+0·41	*	*	*	*
	Aberdeen ℌ	51	39	50·3	42·0	45·9	− 6·2	27	0	6	0·39	−0·04	31·2	−13·7	26	−13
	Braemar ℌ	62	35	53·3	38·2	45·3	− 5·2	39	11	6	0·68	+0·15	25·2†	? †	21†	?†
	Ochtertyre ℌ	62	37	56·1	40·1	47·6	− 5·3	47	5	5	1·18	+0·61	*	*	*	*
	Leith ℌ	60	41	54·4	42·3	48·0	− 5·8	42	0	5	0·51	+ 0·14	*	*	*	*
	Marchmont ℌ	62	39	52·0	41·0	46·2	− 6·0	34	3	6	1·49	+0·96	22·0	?	19	?
2. ENGLAND, N.E.	Alnwick Castle ℌ	57	40	51·4	42·4	46·6	− 5·3	32	0	4	1·66	+1·25	*	*	*	*
	Durham ℌ	65	39	54·0	41·2	47·2	− 3·4	40	2	5	1·00	+0·55	19·3	−21·6	17	−18
	Shields ℌ	60	39	51·9	42·1	46·7	− 3·9	33	0	4	1·02	+0·64	*	*	*	*
	Scarborough ℌ	62	41	52·2	43·2	47·4	− 4·0	38	0	6	1·45	+1·00	*	*	*	*
	York ℌ	66	38	54·7	41·9	47·9	− 4·5	42	0	5	1·02	+0·55	25·4	−16·1	22	−16
	Spurn Head ℌ	60	41	52·6	44·0	48·0	− 3·7	42	0	5	0·93	+0·58	*	*	*	*
3. ENGLAND, E.	Hillington ℌ	64	40	55·7	42·3	48·5	− 4·6	46	0	4	1·08	+0·65	22·3	−25·7	20	−23
	Yarmouth ℌ	57	40	53·1	44·0	48·3	− 3·7	44	0	5	0·35	−0·07	*	*	*	*
	Geldeston ℌ	63	38	56·9	41·9	49·0	− 4·1	49	0	6	0·51	+0·10	34·3	−18·0	31	−15
	Cambridge ℌ	65	39	57·6	42·0	49·3	− 4·6	51	0	4	0·90	+0·41	23·0	−23·3	21	−20
	Rothamsted ℌ	63	39	55·5	41·6	48·1	− 4·3	44	1	6	1·58	+1·08	23·3	?	21	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall) ℌ	67	39	55·6	40·6	47·7	− 5·1	46	4	4	0·92	+0·43	*	*	*	*
	Loughborough ℌ	67	40	57·4	41·7	49·1	− 4·8	51	1	6	0·70	+0·21	*	*	*	*
	Stamford (Ketton Hall) ℌ	65	40	55·9	41·7	48·3	− 5·8	45	1	6	1·05	?	*	*	*	*
	Cheadle ℌ	61	35	52·2	39.8	45·6	− 5·1	34	6	6	0·75	+0·16	*	*	*	*
	Churchstoke ℌ															
	Hereford ℌ	66	40	57·2	42·0	49·1	− 4·5	50	0	5	1·09	+0·61	*	*	*	*
	Cirencester ℌ	64	34	54·0	38·6	45·8	− 6·3	41	10	6	0·94	+0·42	27·3	−18·5	24	−16
	Oxford ℌ	65	38	55·1	42·4	48·4	− 5·2	45	0	5	0·58	+0·10	34·8	−10·7	31	− 9
5. ENGLAND, S.	London ℌ	65	40	56·7	42·9	49·4	− 5·5	52	0	5	0·80	+0·36	22·4†	−20·8†	20†	−20†
	Strathfield Turgiss ℌ	65	37	57·1	41·7	48·9	− 4·7	50	1	6	1·18	+0·76	*	*	*	*
	Dungeness ℌ	59	42	56·1	46·4	51·0	− 2·8	63	0	6	0·47	+0·08	*	*	*	*
	Hastings (St. Leonards) ℌ	58	41	54·5	45·5	49·7	− 4·8	54	0	6	0·61	+0·17	49·5	− 5·6	45	− 6
	Southampton ℌ	64	39	57·2	43·4	49·9	− 4·7	55	0	6	0·69	+0·19	40·4	− 8·8	36	− 8
	Hurst Castle ℌ	59	43	55·4	45·9	50·4	− 3·8	59	0	5	0·43	+0·06	*	*	*	*
	Stowell ℌ	60	38	53·8	41·1	47·1	− 5·8	39	3	4	0·76	?	34·8†	?†	31†	?†
6. SCOTLAND, W.	Laudale (Loch Sunart) ℌ	59	37	56·4	41·5	48·5	− 3·2	48	1	5	0·23	−0·73	*	*	*	*
	Glasgow ℌ	61	39	55·1	42·6	48·5	− 2·8	46	0	5	0·66	+0·11	25·2	−11·3	22	−10
	Ardrossan ℌ	61	35	57·7	40·3	48·5	− 3·2	53	5	3	0·40	−0·15	*	*	*	*
	Glenlee ℌ	58	37	55·6	42·2	48·5	− 1·8	46	0	5	1·08	+0·41	*	*	*	*
	Douglas (Isle of Man) ℌ	56	38	53·8	42·5	47·8	− 3·9	41	0	4	0·33	−0·17	42·6	− 8·9	37	− 8
7. ENGLAND, N.W.	Newton Reigny ℌ	61	35	53·4	39·8	46·2	− 3·4	39	6	6	0·52	+0·07	31·5	−15·5	27	−15
	Stonyhurst ℌ	62	40	53·4	42·8	47·8	− 4·4	41	0	6	0·88	+0·25	23·9	−20·9	21	−18
	Blackpool ℌ	63	41	56·2	44·2	49·8	− 2·9	55	0	2	0·41	−0·09	30·9	−15·3	27	−13
	Manchester ℌ	63	39	53·4	42·1	47·4	− 4·5	38	0	6	0·86	+0·26	*	*	*	*
	Liverpool Obsy. (Bidston) ℌ	61	42	54·6	43·7	48·8	− 4·3	48	0	4	0·46	+0·04	*	*	*	*
	Llandudno ℌ	58	42	53·7	43·7	48·4	− 5·1	45	0	4	0·50	+0·09	29·4	−14·1	26	−13
	Holyhead ℌ	59	44	53·7	45·3	49·3	− 3·4	51	0	3	0·17	−0·27	*	*	*	*
8. ENGLAND, S.W.	Llandovery ℌ	62	37	56·6	40·9	48·3	− 4·9	49	3	5	1·08	+0·43	*	*	*	*
	Pembroke ℌ	55	42	51·6	44·4	47·8	− 3·9	41	0	5	0·44	−0·01	42·4	− 8·5	38	− 8
	Arlington (N. Devon) ℌ	57	37	53·4	39·7	46·1	− 5·3	38	6	6	1·07	+0·37	*	*	*	*
	Cullompton ℌ	60	38	56·2	40·9	48·1	− 5·0	47	3	5	0·26	−0·22	33·2	−12·8	30	−11
	Falmouth ℌ	60	41	54·9	43·1	48·6	− 4·9	46	0	5	0·37	−0·23	71·3	+20·5	65	+18
	Plymouth ℌ	66	40	60·1	43·9	51·5	− 4·2	67	0	4	0·44	−0·01	53·6	+ 5·8	49	+ 6
	Prawle Point ℌ	56	41	53·0	43·9	48·2	− 4·5	43	0	5	0·24	−0·11	*	*	*	*
9. IRELAND, N.	Malin Head ℌ	59	42	52·4	44·6	48·3	− 4·4	44	0	4	0·39	?	*	*	*	*
	Londonderry ℌ	63	40	57·6	42·9	49·8	− 3·1	55	0	5	0·81	+0·26	*	*	*	*
	Mullaghmore ℌ	57	44	53·4	44·9	48·9	− 4·0	48	0	4	0·56	−0·04	*	*	*	*
	Belmullet ℌ	53	43	51·3	43·9	47·4	− 5·7	38	0	6	1·06	?	*	*	*	*
	Markree Castle ℌ	59	37	55·0	41·3	47·7	− 2·9	43	2	5	0·92	+0·43	45·9	+ 4·1	40	+ 5
	Brookeborough ℌ	59	34	55·2	40·1	47·2	− 4·2	44	5	4	1·12	+0·62	*	*	*	*
	Armagh ℌ	58	37	55·5	41·4	48·0	− 3·7	45	2	5	0·53	+0·08	29·2	−12·8	26	−11
	Donaghadee ℌ	58	45	54·6	45·6	49·8	− 1·9	55	0	4	0·45	−0·05	*	*	*	*
	Edgeworthstown ℌ	58	30	55·9	35·9	45·3	− 6·1	49	17	5	0·36	−0·27	*	*	*	*
10. IRELAND, S.	Dublin ℌ	63	41	55·3	43·5	49·1	− 4·4	50	0	4	0·92	+0·48	36·0	−11·9	32	−10
	Parsonstown ℌ	61	34	56·3	40·4	47·9	− 4·7	48	4	5	1·16	+0·64	24·9	−17·3	22	−15
	Kilkenny ℌ	58	34	56·0	41·1	48·1	− 5·1	46	3	5	0·44	−0·04	*	*	*	*
	Waterford ℌ	60	36	58·4	40·7	49·0	− 4·8	54	4	3	0·40	−0·14	*	*	*	*
	Roche's Point ℌ	57	41	55·0	44·3	49·3	− 4·7	51	0	3	0·80	+0·09	*	*	*	*
	Valencia ℌ	56	41	54·3	44·4	49·1	− 4·4	50	0	7	1·36	+0·66	48·1	+ 0·2	43	0
	Killarney ℌ	58	33	54·7	41·7	47·8	− 4·6	42	1	7	1·72	?	*	*	*	*
	Foynes ℌ	61	34	55·5	43·7	49·2	− 3·2	50	0	5	0·41	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's) ℌ	59	45	55·0	47·1	50·8	− 2·9	62	0	4	0·24	−0·14	*	*	*	*
	Jersey ℌ	60	42	55·1	45·6	50·1	− 4·4	57	0	6	0·90	+0·48	50·2	−6·1	46	− 5

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

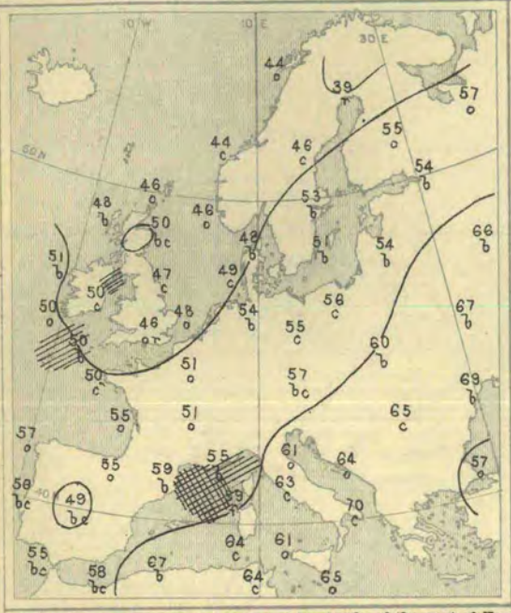
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

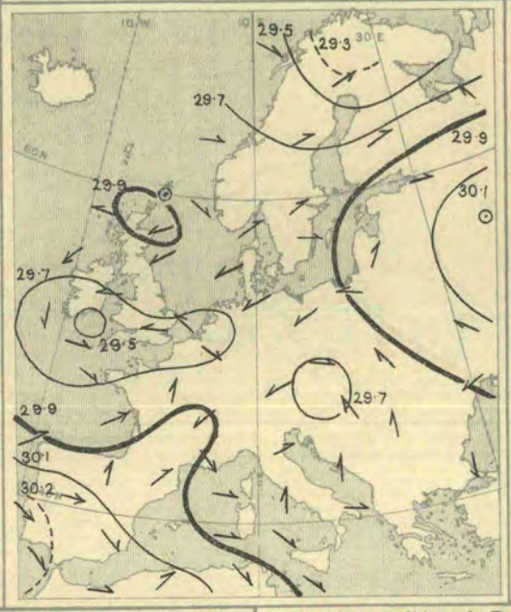
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 24th May.

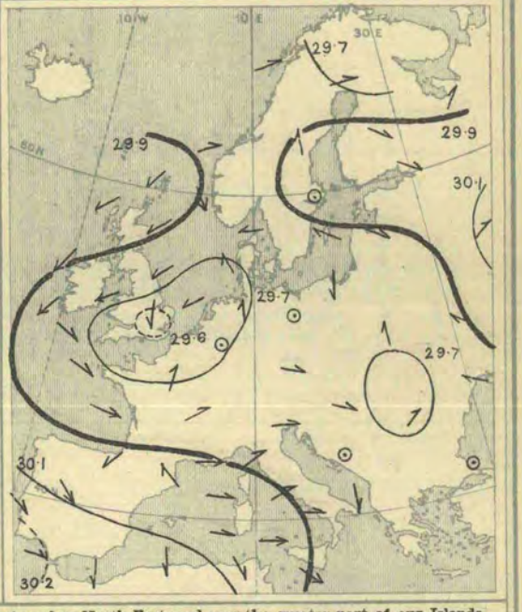
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather rainy over the south-east of England and the west of France, and showery in the south-west of our Islands. Fine over the northern parts of the United Kingdom, and also over by far the greater portion of the Continent, but dull and unsettled over Lapland and northern Russia, with rain at Haparanda. Dull also at many of the Italian stations. Heavy rain falling during day in several parts of England, France, Holland, and north Germany, with hail in places; a prolonged thunderstorm occurring in London and another at Riga.

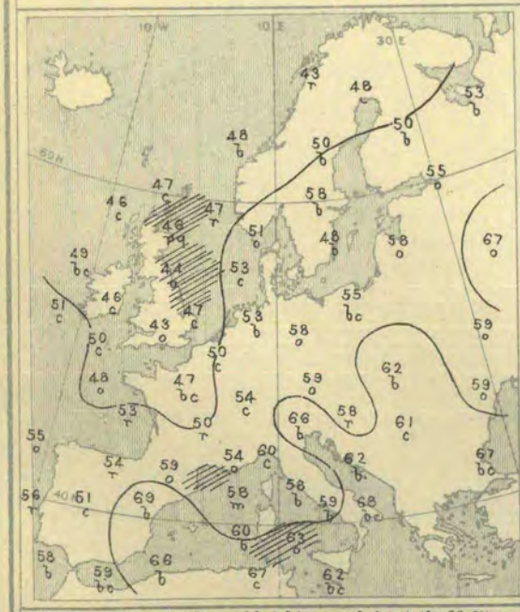
Temperature highest, 70° at Brindisi, 69° at Odessa, 68° at Nicolaieff, and 67° at Kiev, Kharkov, and Algiers; above 60° over the Mediterranean and eastern Europe generally. Lowest, 39° at Haparanda, 44° at Bodö and Christiansund, and 46° at Hernösand, Loughborough, Oxford, and in London; below 50° in most parts of the United Kingdom. Remaining below 50° all day in some of the eastern and central parts of England; exceeding 60° in France (72° at Biarritz), exceeding 70° over Italy, Austria, and several parts of Germany, and touching 66° at St. Petersburg.

Wind light to fresh from the Eastward or North-Eastward over the greater part of our Islands, and also over the Netherlands, Denmark, and north Germany. Westerly or South-Westerly over the Channel, France, and Spain, as well as in Scandinavia and northern Russia. Light from the South-Eastward over Austria and the south of Russia; variable over Italy and Algeria. No important change occurring during day.

Barometer highest, 30·2 ins. and upwards in an anticyclone lying off the south-west of Spain; 30·1 ins. and upwards in another system lying over Russia; a "col" with readings above 29·8 ins. extending from the latter region across the Baltic, Denmark, and the North Sea, and uniting the large Russian anticyclone with a small one over the north-east of Scotland. Lowest, 29·4 ins. and less in a depression over Lapland, 29·6 ins. and less in another over the south-west of our Islands, 29·7 ins. and less in a third over south Germany, 29·8 ins. and less in a fourth over Corsica and Sardinia. Depression over our south-west coasts subsequently moving eastwards to the south-east of England.

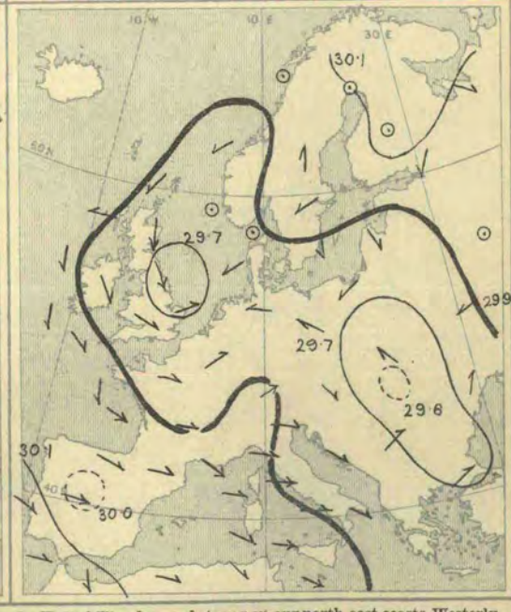
Monday, 25th May.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.



Weather in morning fine and bright, as a whole, at the Mediterranean and Adriatic stations only, fine temporarily in some parts of central, northern, and north-western Europe, but dull in the other parts, and changeable and unsettled in those regions generally. Cold rain in the eastern half of Great Britain and in several parts of France and Spain. Rain later, except in the extreme west of the British Islands, the north of Scandinavia, and over Italy, the fall being considerable on our north-east coasts. Thunder and lightning at Prawle Point and Lyons.

Temperature very low for time of year over north-western Europe. Morning readings varying between 60° and 65° on the shores of the Mediterranean, and also over Austria, Hungary, Poland, and central Russia, and exceeding 50° over northern Russia, but below 50° over the greater part of our Islands and Norway. Lowest, 41° at Loughborough, 42° at Oxford, 43° in London, and at several other English stations. Rising to between 50° and 56° in some parts of our Islands later, but not touching 50° in the north-east and east; exceeding 60° at Paris and in the south of France, exceeding 70° over Austria and Italy, and exceeding 85° in some parts of Algeria.

Wind generally Northerly over the United Kingdom and strong on our north-east coasts, Westerly in the west and south of France, Southerly over Belgium and the Netherlands, South-Easterly in Denmark, very variable elsewhere. Moderating in force over our Islands later, and backing to Westward all over France, as well as the south of England. No general or important change later.

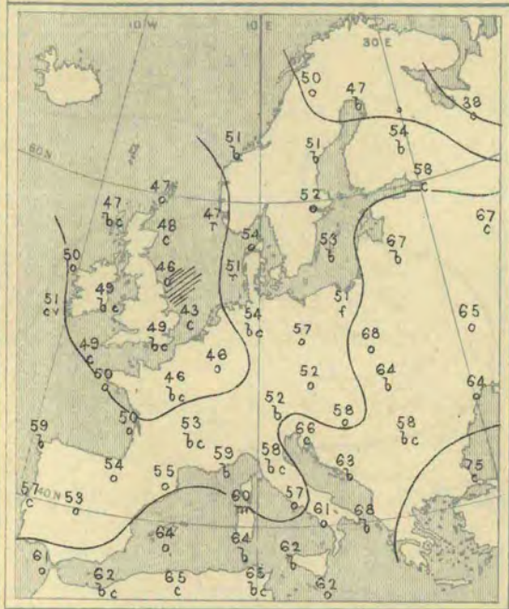
Barometer highest, 30·1 ins. and more to 30·0 ins. over central Russia, and also over Spain; exceeding 30·0 ins. over Finland, 30·0 ins. and more to 29·9 ins. over Ireland, and exceeding 29·9 ins. over the south of France and northern half of Scandinavia. Lowest, 29·6 ins. and less in a depression over the North Sea, 29·7 ins. and less in another (shallow one) over Hungary. Depression over North Sea beginning to fill up later.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

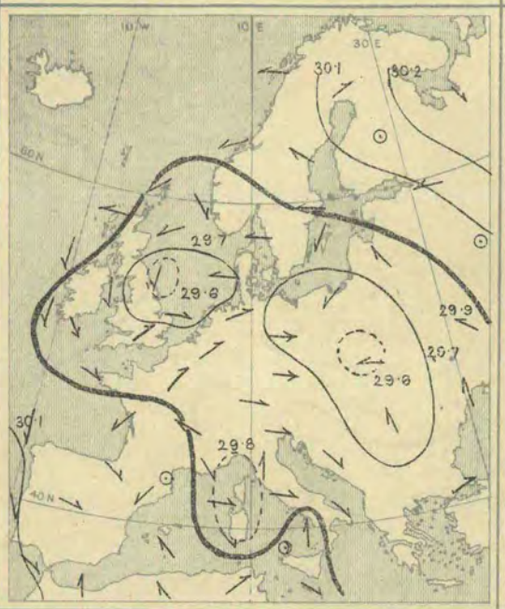
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 26th May.

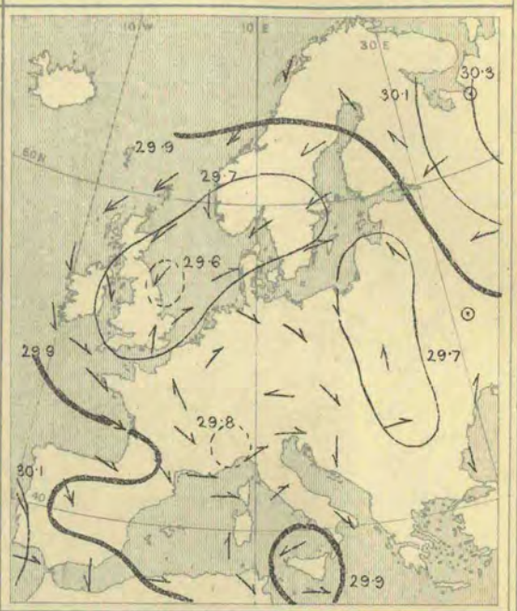
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine generally over northern Europe, the Baltic Provinces, and central Russia, as well as over the greater part of the Mediterranean; temporarily fine over some parts of England, France, and central Europe, but cloudy and unsettled elsewhere. Rain during the day over nearly the whole of western and north-western Europe, the fall being heavy over our northern and north-eastern districts; thunderstorms again reported at Prawle Point and Lyons.

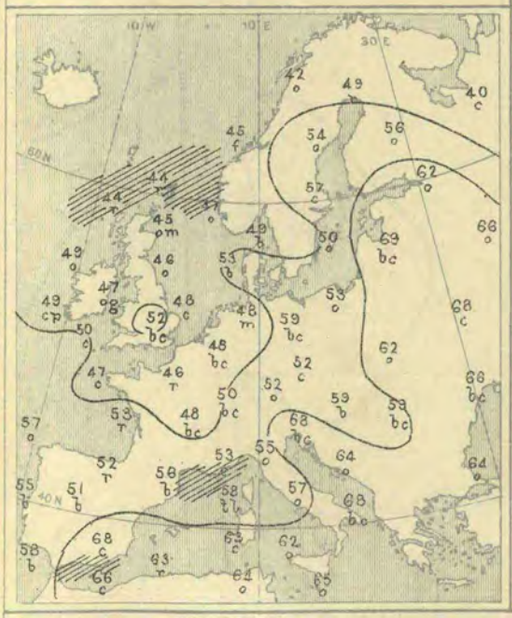
Temperature fallen over France, but inclined to recover a little in our Islands. Morning readings again exceeding 60° at most of the Mediterranean stations and over central Europe, as well as over southern and central Russia and the Baltic Provinces; local areas of great cold in north-western countries. Lowest, 38° at Archangel, 39° at Le Mans, 43° at Loughborough and Yarmouth, 44° at Nairn and Pembroke, 45° at Parsonstown and Liverpool, 46° at Malin Head, Shields, Cambridge, Brussels and Paris. Not touching 60° at any of our own stations during the day, but exceeding that value in several parts of France and Germany, and rising to between 70° and 80° over Austria and Italy.

Wind Easterly over northern Europe, North-Easterly in Scotland, Northerly in Ireland, North-Westerly over the west of England and the Bay of Biscay, Westerly over the greater part of France and Germany; very variable elsewhere, but mainly Southerly to South-Easterly over Hungary and the south of Russia. Light at most inland stations, moderate to fresh on the coast. No material change reported later.

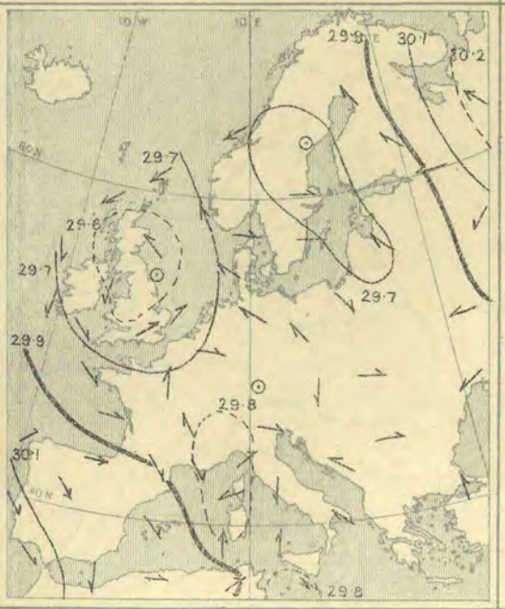
Barometer highest, 30·2 ins. and more to 30·0 ins. over northern Russia, Finland, and the east of Lapland; 30·1 ins. to 29·9 ins. over the Spanish Peninsula and south-west of France. Lower over the British Isles, North Sea, and central Europe, and lowest of all, 29·6 ins. and less in a depression off our north-east coast and in another over Galicia. Little change later, beyond a gradual decrease of pressure over north-western Europe. Depression over North Sea moving westwards towards England later and beginning to spread out a good deal.

Wednesday, 27th May.

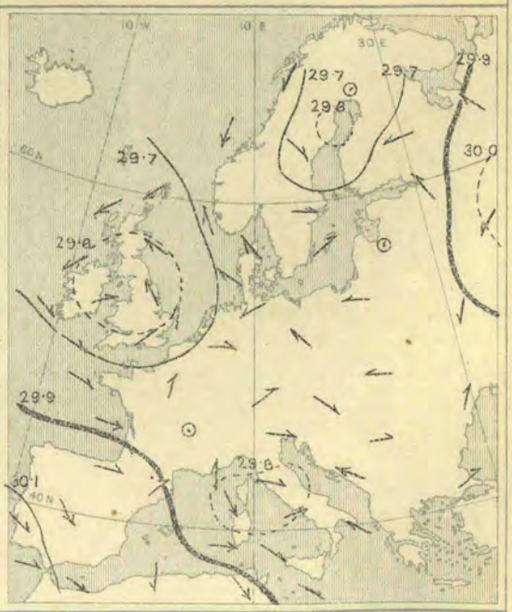
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright in Spain and over south-eastern and some parts of central Europe. Cloudy or overcast at the Russian stations, changeable and unsettled elsewhere. Rain falling over many parts of the British Islands, France, the northern parts of the Mediterranean, and some parts of the Baltic. Rain very general over central and western Europe and the British Isles later, but amounts small except in the Netherlands. Thunderstorms occurring in some parts of Germany.

Temperature fallen fast over southern Europe, inclined to rise over the United Kingdom. Morning readings exceeding 60° over Algeria, Sicily, southern Italy, south-eastern Europe, and central Russia; lower elsewhere. Below 50° over nearly the whole of the British Islands, the northern parts of France, and in Norway, and as low as 40° at Archangel, 42° at Bodö, 44° in the Shetlands and Hebrides, 45° at Liverpool and Le Mans, and 46° at Paris. Rising during day to between 56° and 58° over the greater part of the United Kingdom, to 60° and more in the southern parts of France, and to 70° and more over Austria, Algeria, and the south of Italy.

Wind moderate and cyclonic over the North Sea and United Kingdom, as a whole, but blowing a moderate gale from North-East in the extreme north of Scotland. Another cyclonic circulation prevailing over the northern half of the Mediterranean; North-Westerly breezes prevailing over the Spanish Peninsula, very variable winds elsewhere. No material change later.

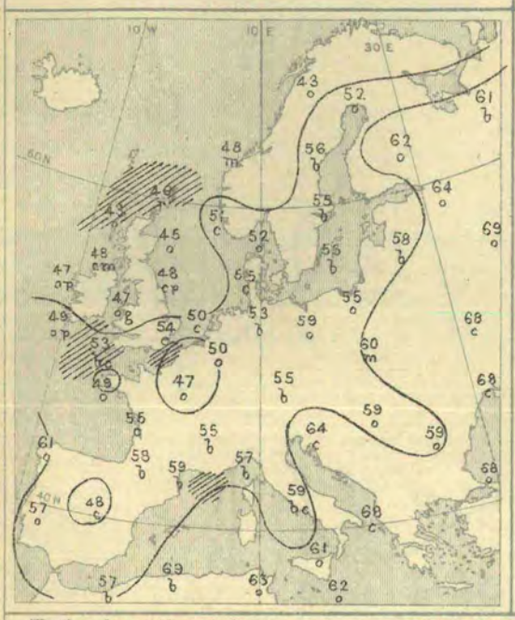
Barometer highest, 30·2 ins. and more to 29·9 ins. over northern and central Russia, 30·1 ins. and more to 29·6 ins. over the Spanish Peninsula. Considerably lower over north-western, central, and southern Europe, and as low as 29·6 ins. and less in a shallow depression lying over the British Isles, 29·7 ins. and less in another over Sweden and the Baltic, 29·8 ins. and less in a third over Sardinia, Corsica, and the south-east of France. British depression moving little and irregularly later; new but shallow disturbance appearing over the Mediterranean, near Malta.

Judds & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons.

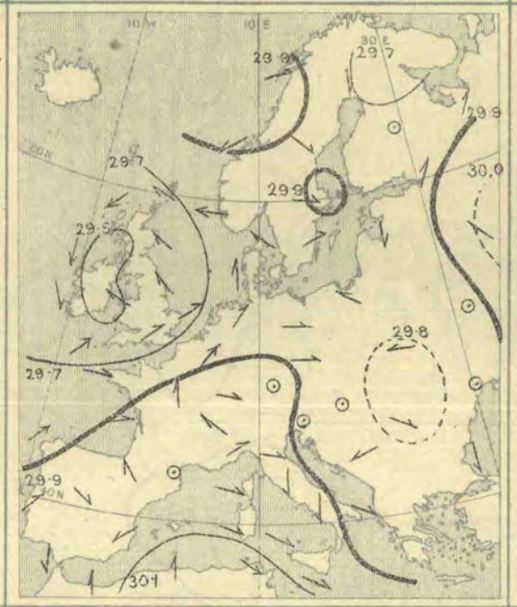
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 28th May.

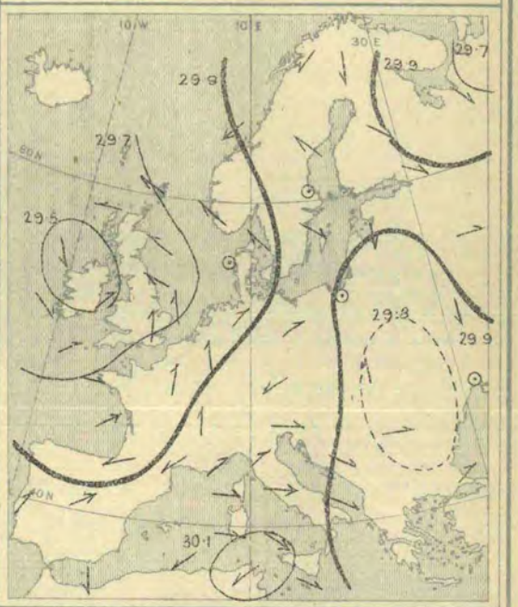
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather changeable and showery in the west and north of our Islands. Fine at our eastern, southern, and most of the Continental stations, but dull over Spain, Russia, and some of the central countries, with rain at Prague and Vienna. Rain falling during day in nearly all parts of north-western and central Europe, and in southern Russia; thunderstorms occurring over the northern counties of England and Ireland. Solar halo seen at Oxford in evening.

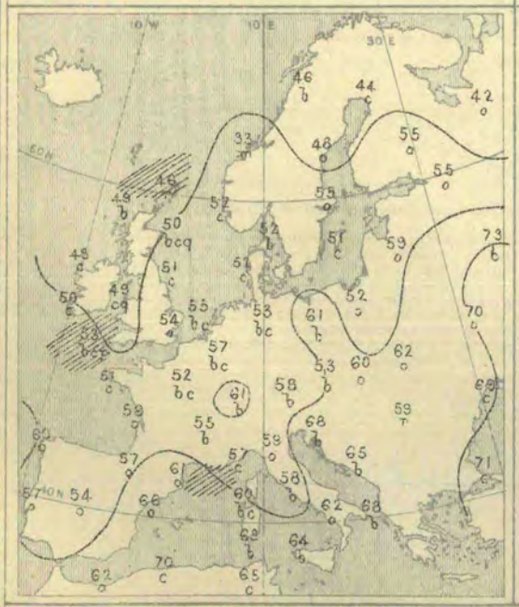
Temperature highest, 69° at Moscow, Kharkov, Nicolaiff, and Algiers, and 68° at Kiev, Odessa, Naples, and Brindisi; above 60° over the Mediterranean, the Adriatic, Austria, Poland, and greater part of Russia. Lowest, 43° at Bodö and Stornoway, 45° at Aberdeen, Loughborough, and Le Mans, and 46° at Sumburgh Head, Nairn, and Donaghadee; below 50° in all but the southern parts of the United Kingdom, and also in the north of France. Subsequently rising to between 55° and 61° at the English stations, exceeding 70° over Austria, Italy, and the southern parts of France, and exceeding 80° in many parts of Algeria.

Wind light to fresh from the Southward or South-Westward over the Netherlands, western Germany, and the greater part of England and France; Easterly or North-Easterly over Scotland, the north of Ireland, and the southern parts of Norway; Northerly or North-Westerly in the west and south of Ireland, and also in Sweden. Light from the Eastward or South-Eastward over Russia, Poland, and the southern shores of the Baltic; Westerly over Germany and Austria, North-Westerly over Italy, Southerly in Algeria; variable in Spain. Very little change occurring during day, but wind becoming very light and variable over Russia.

Barometer highest, 30·1 ins. and upwards in an anticyclone lying over Algeria, 30·0 ins. to 29·9 ins. over central Russia, 29·9 ins. and upwards in the west of Norway. Lowest, (1) 29·5 ins. and less in a well-marked depression lying over Ireland; (2) 29·8 ins. and less in a still shallower system lying over eastern Austria. Irish depression subsequently moving slowly in a north-westerly direction, but new disturbance beginning to appear over the north-east of Spain.

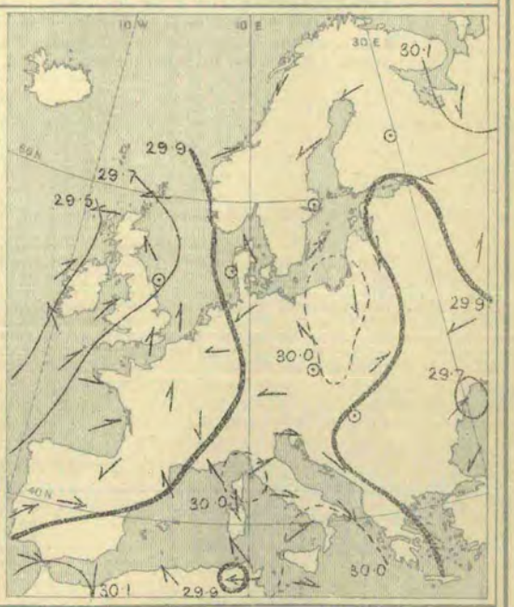
Friday, 29th May.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.



Weather in morning fine and bright over central Russia and at several of the Baltic stations, also over central and southern Europe (with the Mediterranean) and the south-eastern parts of England; cloudy or overcast, as a rule, elsewhere, with showers in the western and northern parts of the British Isles, the north-west of France, and at Hermanstadt. Rain later at all our northern and western stations, the south-east of England, the Netherlands, France, and some parts of Spain; amounts considerable at some Continental stations, but not in our Islands.

Temperature fallen over northern Europe, but showing a tendency to rise elsewhere. Morning readings 70° or more over central Russia, at Kieff, and St. Petersburg, and exceeding 60° over eastern Austria and on the shores of the Adriatic and Mediterranean. Below 50° in the west and north of the British Islands and over Lapland, and as low as 42° at Archangel, 46° at Bodö, Sumburgh Head, and Malin Head, 47° at Parsonstown, and 48° at Nairn and Leith. Rising later to 60° and more over the central and north-eastern counties of England, and to between 70° and 80° over Germany, Austria, Italy, and the southern parts of France, to 81° at Brindisi, and to a still higher value over central Algeria.

Wind moderate to fresh from between West and South over the English Channel and southern half of our Islands; light to moderate Southerly over the northern counties and in Holland, Easterly over Scotland, North-Easterly to Easterly over the Gulf of Bothnia. Very light and variable at the Continental and Mediterranean stations as a whole. Becoming Southerly over the greater part of our Islands later and freshening at Valencia.

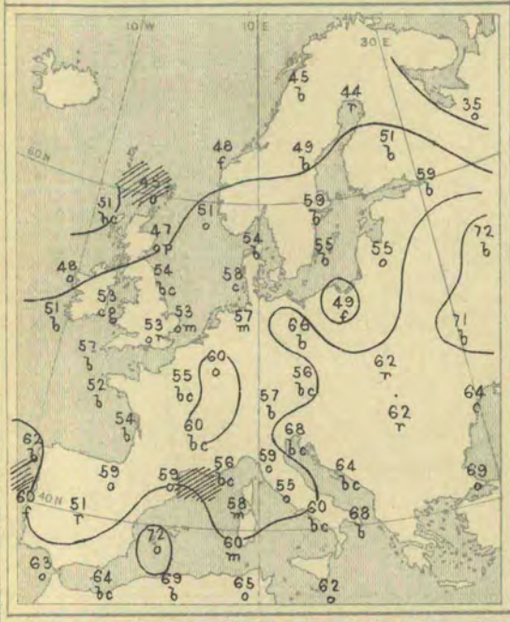
Barometer highest, 30·1 ins. and more to 30·0 ins. over the Mediterranean and central Europe, as well as over Lapland and the Gulf of Bothnia - a "col" lying over the Baltic and uniting the two systems; also 30·0 ins. and more over central Russia. Lowest, 29·5 ins. and less in a depression over the north of Ireland, 29·8 ins. and less over the Black Sea. No great change later, but very shallow local disturbances found in various parts of north-western Europe.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

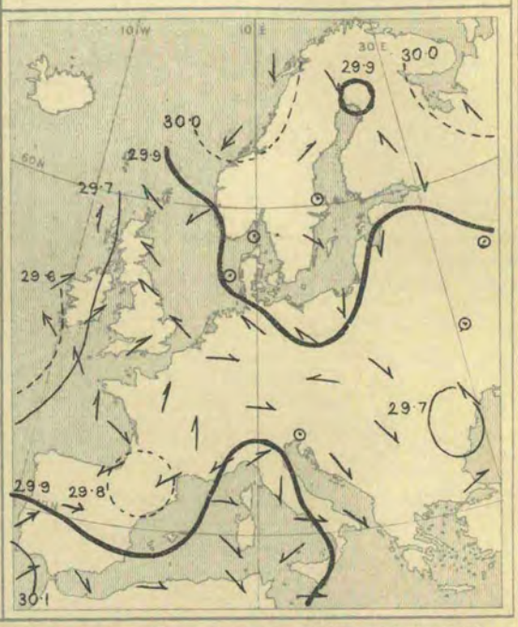
Saturday, 30th May.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.



Weather in morning fine and bright at the majority of the stations situated in Russia, central and southern Europe, as well as over the eastern and north-midland counties of England; cloudy and unsettled elsewhere, with rain in several parts of our Islands (most in west), as well as in some parts of Spain, Hungary, and Lapland; lightning at Odessa. Rain in Ireland and some parts of Scotland, England, Holland, and France later, as well as in southern Russia; fog and gloom over the east of England.

Temperature not changing much. Morning readings ranging from 65° to 72° over central and southern Russia, and exceeding 70° on the southern and western shores of the Mediterranean generally, as well as at Berlin, Swinemunde, and Helsingfors. Below 50° in the extreme north-west and north of our Islands and over the northern parts of Scandinavia and Russia, and as low as 35° at Archangel, 44° at Haparanda, 45° at Sumburgh Head, and 46° at Malin Head. Rising to between 60° and 67° over England later, to 70° and more over Sweden, Germany, Austria, and Italy, to 80° at Brindisi, and to between 70° and 86° over Algeria.

Wind moderate to strong from South-West and South at our western stations, moderate South-Easterly in Scotland, as well as over the North Sea and Germany; very variable elsewhere, and of little strength, but mainly South-Westerly over the Iberian Peninsula. The South-Easterly wind over Caithness and the South-Westerly wind over the Peninsula both becoming strong later.

Barometer highest, 30·1 ins. and more to 30·0 ins. over the White Sea and north of Russia, 30·1 ins. to 29·9 ins. over Algeria and the southern half of Spain, 30·0 ins. and more near Stockholm. Lowest, 29·4 ins. and less in a depression off our extreme north-western coasts, 29·7 ins. and less over the south-west of Russia, and distribution of pressure irregular over the northern half of Europe generally. New anticyclone forming over the north-west of Norway later; depression off our north-west coasts apparently filling up, but a new one approaching Valencia.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During this period the distribution of pressure over Europe was exceedingly complex, and the weather for the most part changeable and unsettled, with thunderstorms in many localities.

During the early part of the week two well-defined high-pressure areas were shown—one over central and northern Russia and the other to the south-west of the Spanish Peninsula—but later on these systems became greatly reduced in height, while other small anticyclones appeared respectively over Scandinavia and the Mediterranean. Over all but the extreme northern and southern countries the weather was influenced by shallow depressions, some of which formed and died away without materially altering their positions, while others moved in erratic paths over limited tracks of country. Of the latter class the most striking instance was afforded by a depression which first appeared on the morning of the 24th, near the mouth of the Bristol Channel. Later in the day the system moved eastwards along the south of England and north-eastwards across our south-eastern counties to the North Sea, where it remained stationary for several hours. On the 26th, however, it began to retrace its path in a westerly direction, and in the three following days its centre moved slowly over the northern parts of England and Ireland, the disturbance eventually passing away over the Atlantic.

The prevailing winds during the week were mainly Easterly over the northern, and Westerly over the southern, counties, but in the western and central districts great variability was shown.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 122.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	20·1	?	17	?	EASTBOURNE	51·6	?	46	?
OSWALDKIRK (Yorkshire)	20·2	?	18	?	TORQUAY	38·5 *	?	35 *	?
WORKSOP	21·3	−17·7	19	−16	ARLEY COTTAGE (County Cavan)	23·3	?	20	?
THURCASTON (Leicestershire)	29·7	−10·3	26	−9					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 22.] *Third Series.* WEEK ENDING SATURDAY, 6TH JUNE, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 128.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	73	31	58·0	43·2	50·1	0 (average)	57	+ 4	0	− 3	416	+ 26	617	+ 76
1. SCOTLAND, EAST	74	34	57·4	42·2	49·3	3 below.	51	−19	0	− 1	448	− 84	666	+ 97
2. ENGLAND, N.E.	72	40	56·9	45·1	50·6	2 below.	60	− 7	0	− 1	413	−106	593	+ 95
3. ENGLAND, EAST	75	40	63·2	48·5	55·4	1 above.	94	+ 8	0	− 1	573	− 92	689	+128
4. MIDLAND COUNTIES	74	36	65·2	48·2	56·1	2 above.	99	+13	0	− 1	620	− 69	668	+116
5. ENGLAND, SOUTH	76	37	66·2	50·1	57·6	2 above.	109	+17	0	0	650	− 97	565	+149
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	71	37	62·3	47·4	54·3	2 above.	86	+13	0	− 1	517*	− 6	463*	+ 47
7. ENGLAND, N.W.	72	32	63·2	48·6	55·4	2 above.	94	+16	0	0	555	− 24	451	+ 37
8. ENGLAND, S.W.	75	38	62·6	49·1	55·4	1 above.	94	+11	0	0	651	− 63	434	+118
9. IRELAND, NORTH	72	40	60·0	47·9	53·5	0 (average)	81	+ 7	0	0	597	− 48	390	+ 28
10. IRELAND, SOUTH	68	46	60·3	50·5	55·1	1 above.	92	+10	0	0	756	− 23	309	+ 31
— CHANNEL ISLANDS	73	50	61·3	52·4	56·5	1 above.	102	+13	0	0	774	− 47	162	+ 40

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 128.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	0	—	6 less.	97	− 5	18·6	− 0·4	70	+48	58	+40	583	+ 74	31	+ 3
1. SCOTLAND, EAST	1	less than ½	5 less.	63	−19	8·1	− 3·8	33	−15	28	−13	588	+ 11	32	0
2. ENGLAND, N.E.	1	3	1 less.	70	− 7	7·4	− 2·1	54	+10	47	+ 9	557	+ 41	30	+ 2
3. ENGLAND, EAST	4	8	3 more.	75	0	8·0	− 1·3	37	−13	32	−11	587	− 32	32	− 2
4. MIDLAND COUNTIES	5	11	6 more.	70	− 3	5·2	− 1·6	37	− 6	33	− 4	558	+ 14	30	0
5. ENGLAND, SOUTH	3	4	1 less.	65	− 7	9·1	− 1·6	56	+ 5	50	+ 3	633	+ 53	34	+ 2
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	2	3	4 less.	72	−16	12·6	− 6·8	36	− 9	31	− 6	598	+ 41	32	+ 2
7. ENGLAND, N.W.	4	11	6 more.	63	−17	8·6	− 3·6	34	−12	29	−11	544	− 4	29	− 1
8. ENGLAND, S.W.	5	12	7 more.	67	−15	11·9	− 3·4	30	−22	27	−19	682	+ 37	37	+ 2
9. IRELAND, NORTH	5	4	2 less.	82	−10	9·6	− 3·9	24	−16	21	−13	583	+ 32	31	+ 1
10. IRELAND, SOUTH	5	17	11 more.	75	−12	11·4	− 4·4	25	−20	22	−18	639	+ 11	34	0
— CHANNEL ISLANDS	5	16	12 more.	73	−16	11·0	− 1·6	55	+ 2	53	+ 2	861	+102	46	+ 4

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather during this period has varied considerably. In the north of Scotland and the north-east of England it was fine and bright, in the south of England generally fair, but with some showers. In most parts of England, however, and over Ireland, much cloud prevailed and a good deal of rain fell. Thunder and lightning were experienced in many parts of the Kingdom—chiefly on the 2nd, 3rd, and 4th.

Temperature has continued rather below the mean in "Scotland E." and "England N.E.," and has just equalled it both in "Scotland N." and "Ireland N.;" elsewhere, however, it has been 1° or 2° above the normal. The highest of the maxima, which were recorded at most stations on June 1st, ranged from 76° in "England S." to 68° in "Ireland S." The lowest of the minima were registered either at the beginning or end of the week, and varied from 31° in "Scotland N." and 32° in "England N.W." to 46° in "Ireland S." and to 50° in the "Channel Islands." At the end of the period temperature was decreasing very decidedly.

Rainfall has been considerably more than the mean in most of the English districts, as well as in "Ireland S." and the "Channel Islands," but rather less in "England N.E.," "England S.," and "Ireland S." In Scotland the fall has been very trifling.

Bright Sunshine has varied greatly in different districts, but has, on the whole, been below the mean for the time of year. The percentage of the possible duration has ranged from 58 in "Scotland N.," 53 in the "Channel Islands," 50 in "England S.," and 47 in "England N.E." to 28 in "Scotland E." and 21 or 22 over Ireland.

Barometer and Wind.—The distribution of pressure over Scotland has been generally anticyclonic and the wind light or moderate from the Eastward. Over the southern and western parts of England and Ireland, however, some depressions of irregular shape have been observed, and the wind, though generally light or moderate, has at times increased to a strong breeze or slight gale from the Eastward or South-Eastward.

* This value has been altered owing to the receipt of further information.

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213 370 6|91 1896

II.—DATA from which the SUMMARY on page 127 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	52	41	49·3	42·6	45·7	− 2·2	26	0	1	0·01	−0·42	*	*	*	*
	Stornoway ⚓	69	38	57·6	42·6	49·6	− 0·1	53	0	0	—	−0·65	89·7	+47·9	74	+40
	Wick ⚓	57	42	52·1	43·3	47·4	− 2·5	38	0	1	0·02	−0·38	*	*	*	*
	Lairg ⚓	67	31	60·4	40·9	50·0	− 1·0	61	3	0	—	−0·52	*	*	*	*
	Glencarron ⚓	71	41	62·1	43·7	52·3	+ 2·0	72	0	0	—	−1·17	*	*	*	*
	Fort Augustus ⚓	73	40	58·8	43·6	50·7	− 0·9	61	0	0	—	−0·46	43·0	?	36	?
	Fort William ⚓	72	41	65·7	45·5	54·9	+ 2·4	90	0	0	—	−0·88	76·8	?	63	?
1. SCOTLAND, E.	Nairn ⚓	74	34	58·9	41·3	49·5	− 3·0	55	2	1	0·01	−0·37	*	*	*	*
	Aberdeen ⚓	59	42	53·3	43·9	48·3	− 3·3	44	0	2	0·02	−0·39	29·9	−16·5	25	−13
	Braemar ⚓	67	35	60·7	39·7	49·5	− 0·5	62	6	1	0·03	−0·51	72·9†	? †	60†	?†
	Ochtertyre ⚓	69	35	62·0	40·9	50·7	− 1·6	66	3	0	—	−0·58	*	*	*	*
	Leith ⚓	65	42	54·6	44·1	49·0	− 4·5	49	0	0	—	−0·36	*	*	*	*
	Marchmont ⚓	62	42	55·0	43·3	48·7	− 2·8	47	0	1	0·04	−0·50	22·8	?	19	?
2. ENGLAND, N.E.	Alnwick Castle ⚓	56	44	52·9	44·3	48·3	− 3·1	44	0	0	—	−0·39	*	*	*	*
	Durham ⚓	64	40	59·0	43·3	50·6	− 2·0	60	0	0	0·01‡	−0·42	52·3	+12·3	45	+11
	Shields ⚓	57	41	53·6	42·6	47·7	− 4·2	40	0	0	—	−0·38	*	*	*	*
	Scarborough ⚓	60	43	55·6	46·7	50·8	− 2·1	62	0	1	0·01	−0·44	*	*	*	*
	York ⚓	72	42	65·9	46·3	55·4	+ 1·3	94	0	3	0·40	−0·08	51·2	+10·4	44	+ 7
	Spurn Head ⚓	56	44	54·1	47·6	50·6	− 2·7	60	0	4	1·36	+1·01	*	*	*	*
3. ENGLAND, E.	Hillington ⚓	71	43	64·7	48·5	56·0	+ 1·6	98	0	5	1·68	+1·23	34·9	−12·4	30	−11
	Yarmouth ⚓	59	45	55·6	48·6	51·9	− 1·6	69	0	4	0·86	+0·44	*	*	*	*
	Geldeston ⚓	69	41	61·7	48·0	54·4	0·0	87	0	2	0·40	0·00	37·1	−14·6	33	−12
	Cambridge ⚓	75	44	67·7	49·0	57·7	+ 2·3	110	0	3	0·50	0·00	35·4	−10·8	31	−10
	Rothamsted ⚓	71	40	66·3	48·5	56·8	+ 2·9	104	0	4	0·54	+0·04	38·8	?	34	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	71	41	64·4	46·3	54·7	+ 0·3	89	0	6	2·04	+1·54	*	*	*	*
	Loughborough	74	40	65·0	49·1	56·5	+ 1·1	102	0	6	1·92	+1·42	*	*	*	*
	Stamford (Ketton Hall)												*	*	*	*
	Cheadle ⚓	68	45	60·5	47·8	53·7	+ 1·3	82	0	6	0·89	+0·27	*	*	*	*
	Churchstoke ⚓															
	Hereford ⚓	72	41	66·8	49·2	57·4	+ 2·2	108	0	5	1·05	+0·57	*	*	*	*
	Cirencester ⚓	71	36	66·9	46·6	56·0	+ 2·6	98	0	4	0·33	−0·20	49·6	+ 4·1	44	+ 4
	Oxford ⚓	73	45	67·3	49·9	58·0	+ 2·6	112	0	3	0·48	−0·02	42·1	− 2·4	37	− 2
5. ENGLAND, S.	London ⚓	72	44	68·9	50·9	59·3	+ 3·0	121	0	4	0·24	−0·23	39·1 †	− 4·0†	35†	− 4†
	Strathfield Turgiss ⚓	74	37	69·8	46·8	57·5	+ 2·3	109	0	4	0·32	−0·11	*	*	*	*
	Dungeness ⚓	62	47	60·6	50·1	55·0	− 0·2	91	0	4	0·27	−0·11	*	*	*	*
	Hastings (St. Leonards)	70	45	64·3	51·6	57·5	+ 1·8	109	0	2	0·19	−0·22	59·6	+ 5·1	53	+ 4
	Southampton ⚓	76	41	68·8	50·9	59·2	+ 3·2	120	0	2	0·36	−0·10	59·4	+10·2	53	+10
	Hurst Castle ⚓	70	46	65·0	52·0	58·1	+ 2·5	113	0	3	0·45	+0·02	*	*	*	*
	Stowell ⚓	73	41	65·7	48·4	56·5	+ 1·9	102	0	3	0·64	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	71	44	67·5	47·4	56·8	+ 4·1	104	0	0	—	−1·00	*	*	*	*
	Glasgow ⚓	65	43	59·1	45·0	51·6	− 0·9	67	0	0	—	−0·58	40·1	+ 3·2	34	+ 3
	Ardrossan ⚓	66	42	60·7	45·4	52·5	− 0·5	74	0	1	0·15	−0·42	*	*	*	*
	Glenlee ⚓	70	41	63·6	? 51·7	57·2	+ 5·7	106	0	2	0·35	−0·34	*	*	*	*
	Douglas (Isle of Man)	66	37	60·8	47·4	53·6	+ 0·9	81	0	5	0·90	+0·40	31·6	−19·9	27	−17
7. ENGLAND, N.W.	Newton Reigny ⚓	70	32	63·3	42·2	52·0	+ 0·6	70	0	2	0·41	−0·05	62·0	+15·2	53	+11
	Stonyhurst ⚓	69	44	63·6	48·1	55·3	+ 2·1	93	0	3	0·50	−0·18	38·6	− 6·1	33	− 5
	Blackpool ⚓	72	44	65·0	50·1	57·0	+ 3·1	105	0	3	0·92	+0·42	12·3	−33·7	11	−28
	Manchester ⚓	70	45	65·4	49·1	56·7	+ 3·3	103	0	5	1·82	+1·17	*	*	*	*
	Liverpool Obsy. (Bidston)	71	46	62·0	50·4	55·8	+ 1·2	97	0	5	1·83	+1·42	*	*	*	*
	Llandudno ⚓	71	45	? 61·7	? 50·1	? 55·5	? + 0·8	? 95	0	5	0·97	+0·56	21·9	−21·1	19	−19
	Holyhead ⚓	69	45	61·4	50·0	55·3	+ 1·2	93	0	7	1·24	+0·79	*	*	*	*
8. ENGLAND, S.W.	Llandovery ⚓	75	40	68·1	48·7	57·7	+ 3·1	110	0	4	0·64	−0·03	*	*	*	*
	Pembroke ⚓	70	48	60·0	50·1	54·7	+ 1·7	89	0	5	0·61	+0·15	31·9	−21·1	28	−18
	Arlington (N. Devon)	72	42	63·1	47·4	54·7	+ 1·8	89	0	5	0·67	−0·05	*	*	*	*
	Cullompton ⚓	74	38	67·3	46·4	56·1	+ 1·7	99	0	3	0·92	+0·42	40·2	− 5·8	36	− 5
	Falmouth ⚓	62	49	58·9	50·6	54·5	− 0·2	88	0	6	2·30	+1·70	16·3	−35·5	15	−32
	Plymouth ⚓	67	47	64·0	51·0	57·1	+ 0·2	106	0	5	1·76	+1·32	25·3	−22·7	23	−20
	Prawle Point ⚓	60	48	56·7	49·7	53·0	− 0·7	77	0	6	1·64	+1·29	*	*	*	*
9. IRELAND, N.	Malin Head ⚓	61	45	56·7	47·0	51·5	− 2·2	67	0	2	0·10	?	*	*	*	*
	Londonderry ⚓	72	41	66·4	48·2	56·7	+ 2·6	103	0	4	0·14	−0·42	*	*	*	*
	Mullaghmore ⚓	63	46	58·6	49·1	53·6	− 0·5	81	0	5	0·27	−0·34	*	*	*	*
	Belmullet ⚓	65	47	60·1	49·4	54·4	+ 0·5	87	0	5	0·46	?	*	*	*	*
	Markree Castle ⚓	65	45	60·3	48·4	53·9	+ 1·5	83	0	6	0·56	0·00	26·2	−13·8	23	−11
	Brookeborough ⚓	65	43	60·1	47·4	53·3	+ 1·7	79	0	5	0·47	−0·16	*	*	*	*
	Armagh ⚓	67	41	60·4	47·4	53·5	+ 0·3	81	0	6	0·75	+0·29	23·1	−18·5	20	−16
	Donaghadee ⚓	61	47	57·7	48·6	52·8	− 0·2	76	0	5	0·17	−0·31	*	*	*	*
	Edgeworthstown ⚓	64	40	59·4	45·5	52·0	− 1·1	70	0	5	0·72	+0·04	*	*	*	*
10. IRELAND, S.	Dublin ⚓	63	48	59·3	50·2	54·4	− 0·4	87	0	6	1·50	+1·07	22·3	−24·0	19	−22
	Parsonstown ⚓	68	46	62·4	50·3	55·9	+ 2·0	97	0	5	0·96	+0·43	24·2	−17·8	21	−16
	Kilkenny ⚓	65	47	60·7	49·9	54·9	+ 0·5	90	0	5	1·69	+1·19	*	*	*	*
	Waterford ⚓	66	47	60·7	49·9	54·9	0·0	90	0	4	1·35	+0·80	*	*	*	*
	Roche's Point ⚓	58	50	56·0	50·4	53·0	− 2·3	77	0	6	2·82	+2·11	*	*	*	*
	Valencia ⚓	62	50	59·7	51·0	55·1	+ 0·4	92	0	7	2·25	+1·54	28·8	−18·9	25	−17
	Killarney ⚓	64	50	60·8	51·0	55·6	+ 2·0	95	0	5	1·72	?	*	*	*	*
	Foynes ⚓	64	48	62·6	51·4	56·6	+ 2·8	102	0	4	1·14	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's) ⚓	59	50	56·6	51·7	53·9	− 0·9	83	0	6	1·92	+1·53	*	*	*	*
	Jersey ⚓	73	51	65·9	53·0	59·0	+ 3·3	119	0	3	1·28	+0·86	57·8	+ 1·5	53	+ 2

Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

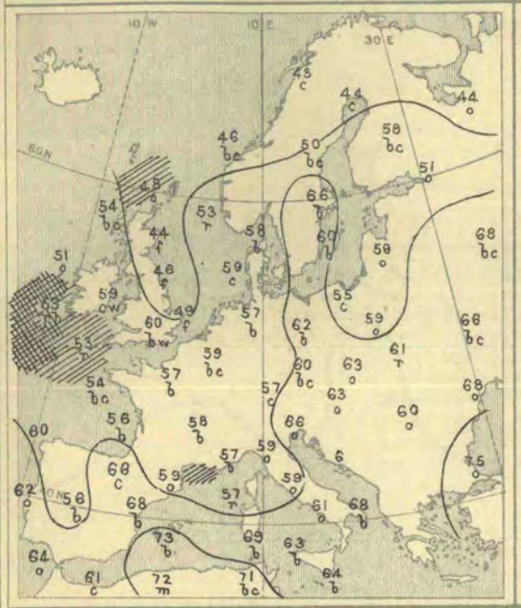
‡ Dew.

NOTE.—The amount of Bright Sunshine will not in future be recorded at Stowell.

Sunday, 31st May.

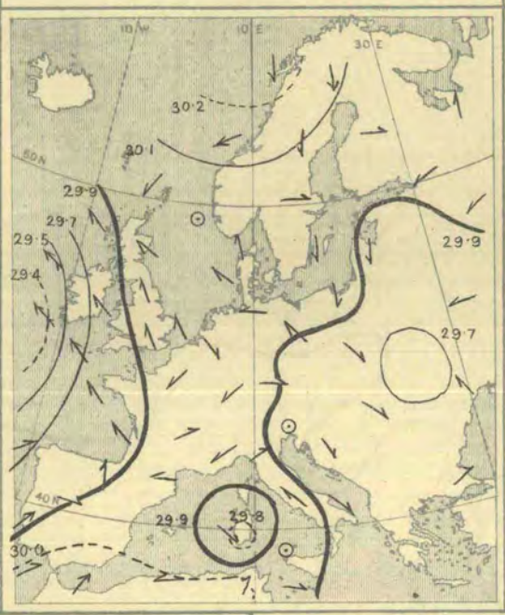
Temperature and Weather.

8 a.m.

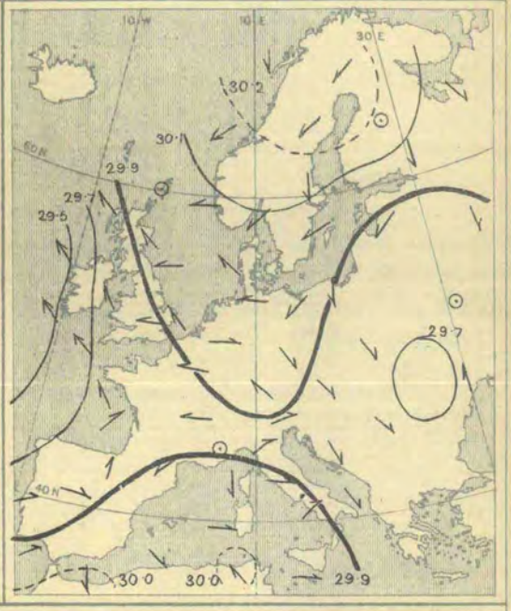


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright at many of the Spanish and Mediterranean stations, as well as over the inland parts of Great Britain, France, and Germany, foggy on our north-east, east, and south-east coasts; cloudy or overcast elsewhere; showery in the west of our Islands and in some parts of Portugal, Corsica, and Hungary. Rain later over the west of our Islands, Portugal, and the south-west of France, thunderstorm at Biarritz, but fine weather continuing over central England and fog at the eastern stations.

Temperature changing irregularly; fallen on the eastern coasts of Great Britain, risen inland. Morning readings, highest, 72° at Algiers, 71° at La Calle; exceeding 60° on the coasts of the Peninsula, Algiers, and Italy, as well as over Austria and Germany; ranging between 65° and 68° over many parts of Russia and Sweden, lower elsewhere; below 50° on the north and east coasts of Great Britain, in Lapland, and the north of Russia, and as low as 43° at Bodö, 44° at Haparanda and Archangel. Rising to 73° at Loughborough, 72° at Cambridge and in London during day, to 70° and more in many parts of France, and to 80° or more over Algeria and some of the extreme southern parts of France and Italy.

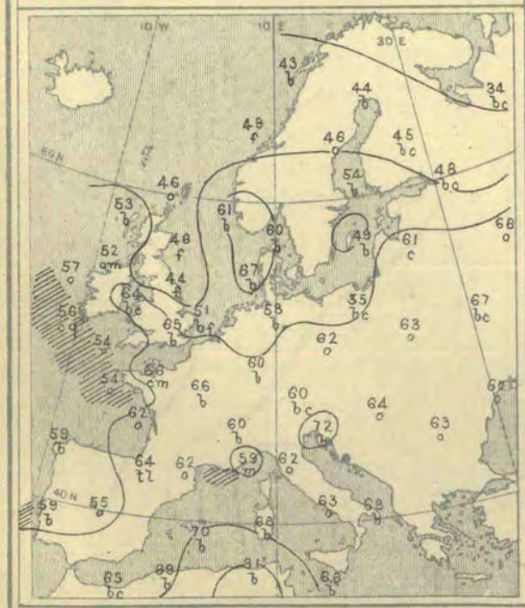
Wind mainly Northerly over Sweden and the Gulf of Bothnia, Northerly to North-Easterly over the Baltic, Easterly to South-Easterly over the North Sea, South-Easterly over England, Ireland, and the Bay of Biscay; very variable over the Continent. Light to moderate in force in most places, but strong to a gale in Ireland and on the coasts of Wales and Cornwall. Gale subsiding later; no other change of importance occurring.

Barometer highest, 30·2 ins. and more to 30·0 ins. over Scandinavia and the Gulf of Bothnia, 30·0 ins. and more over Algeria, and exceeding 29·9 ins. over the greater part of the Mediterranean, France, Germany, and the North Sea. Lowest, 29·4 ins. and less over the Atlantic, off the west of Ireland, 29·7 ins. and less over Hungary and south-western Russia, 29·8 ins. and less in a small depression over the south of Sardinia. Depression off the west of Ireland subsequently moving away over the Atlantic; Sardinian disturbance entirely disappearing.

Monday, 1st June.

Temperature and Weather.

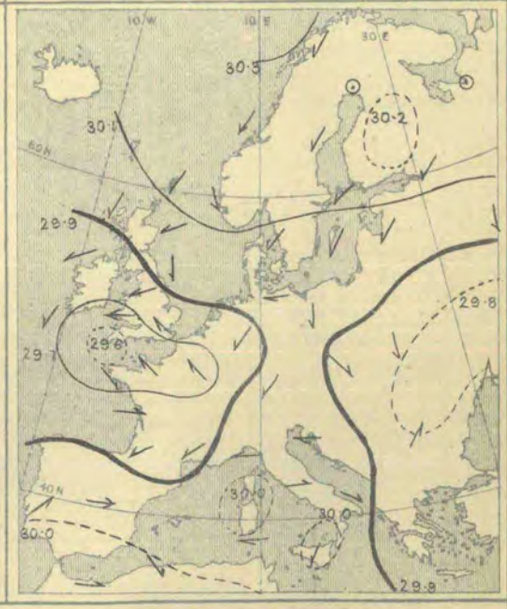
8 a.m.



Barometer and Wind.

8 a.m.

6 p.m.



Weather dull in Ireland, and also in Austria and the western parts of France and Italy, with thunder at Lorient and Biarritz. Fine in most other parts of Europe, but very foggy along the east coasts of Great Britain. Thunderstorms occurring later over nearly the whole of France and the south of our Islands, as well as in some parts of Germany, and very heavy rain falling on our south-west coasts, the largest amounts reported next morning being 1·5 ins. at Roche's Point, 1·2 ins. at Scilly, and 1·1 ins. at Valencia.

Temperature highest, 72° at Trieste, 70° at Palma, 69° at Barcelona, Algiers, and Sfax; above 60° in many parts of central, southern, and eastern Europe, as well as over the inland parts of England. Lowest, 34° at Archangel, 36° at Uleaborg, 43° at Bodö, and 44° at Haparanda and Shields; below 50° over the northern parts of Scandinavia and the northern and eastern parts of the United Kingdom generally. Rising during day to between 70° and 75° at many of the English, French, and German stations, but remaining below 55° on our north-east coasts. Exceeding 80° in Algeria and the south of Italy, the highest reading of all being 99° at Biskra.

Wind light to moderate from the Eastward or South-Eastward over our Islands and France, and from the North-Eastward over Scandinavia, Denmark, the Baltic, and the greater part of Russia. Light from the North-Westward over central and eastern Germany, variable in Italy, South-Westerly over Spain. Subsequently shifting to the Westward in the west of France and to the Northward in Ireland; not much change occurring elsewhere.

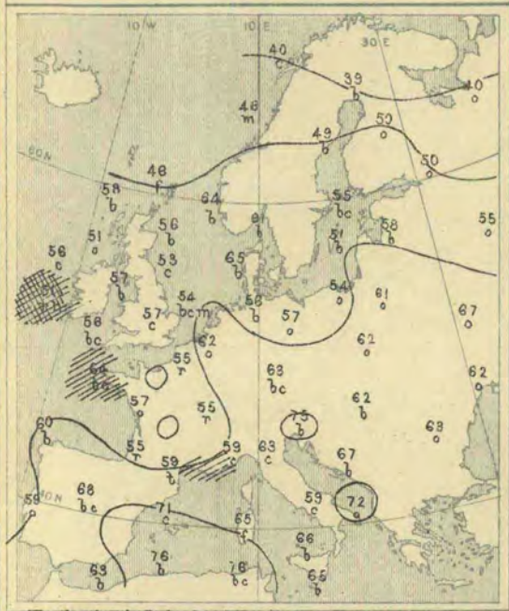
Barometer highest, 30·3 ins. and upwards in an anticyclone lying over Finland and the north of Sweden, 30·1 ins. and upwards over Algeria and the south of Spain. Lowest, 29·7 ins. and less in three depressions lying respectively over eastern Austria, the Bay of Biscay, and to the south-westward of Ireland. Depression over Bay of Biscay subsequently growing deeper and advancing to our south-west coasts; barometer falling steadily in the south of England.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons.

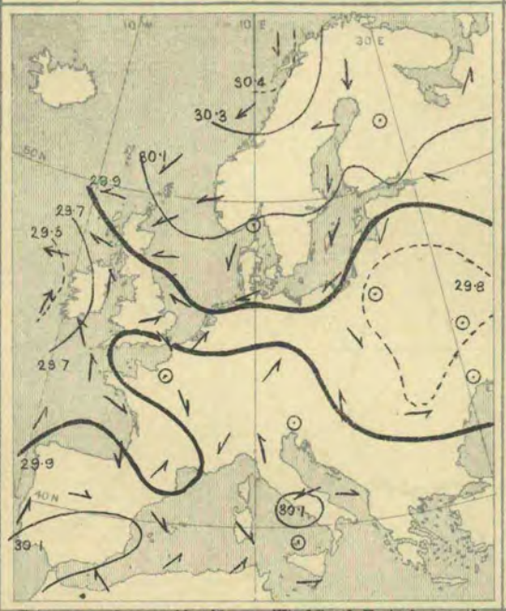
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 2nd June.

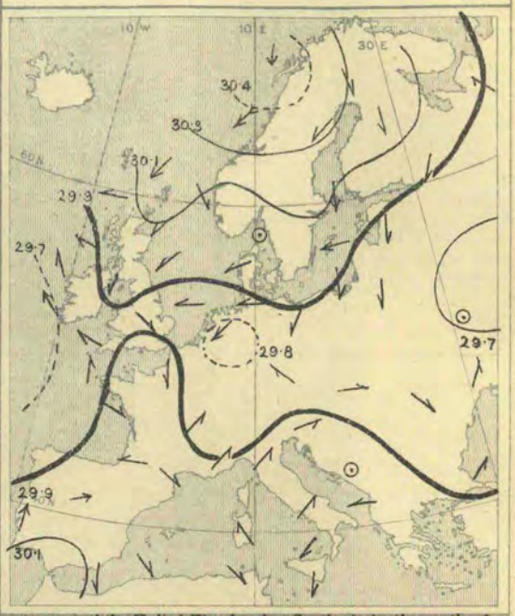
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather dull in Ireland and France, as well as over Austria, eastern Germany, and a considerable portion of Russia, with rain in many places; rain very heavy at Valencia Island and accompanied by hail. Fair or fine in nearly all other parts of Europe. Thunderstorms occurring during day in many parts of Great Britain and France, with heavy rain in places; as much as 2 ins. reported at Belfort on following morning. Rain also setting in over northern Italy.

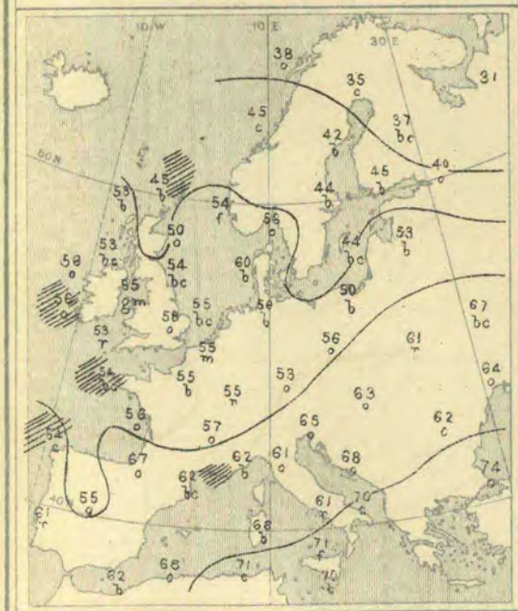
Temperature highest, 76° at Algiers and La Calle, 75° at Trieste, 72° at Brindisi, and 71° at Palma and Sfax; above 60° over central, southern, and eastern Europe generally, as well as in Denmark and the south of Norway. Lowest, 39° at Haparanda, 40° at Archangel and Bodö, 41° at Ulcaborg, and 46° at Christiansund and Sumburgh Head; below 55° at several of our western and northern stations. Rising during day to 70° at Cambridge and 71° at Loughborough, but remaining below 60° at several of our western, northern, and eastern stations. Exceeding 75° in many parts of southern and eastern Europe and exceeding 80° in Algeria.

Wind South-Easterly over the greater part of the United Kingdom, but Southerly in the south of Ireland, with a gale at Valencia Island, and South-Westerly or Westerly over the south-east of England. Moderate to strong from the North-Eastward or Northward over Scandinavia, Denmark, and the Baltic, South-Westerly or Southerly over the southern parts of Germany, North-Westerly in the south of France, South-Westerly or Southerly over the western parts of the Spanish Peninsula and also in Algeria; variable in Italy. Subsequently backing to the South-Eastward in the south of Ireland; very little change elsewhere.

Barometer highest, 30·4 ins. and upwards in an anticyclone lying off the north-west of Norway, 30·1 ins. and upwards in another system lying over the south of Spain. Lowest, 29·5 ins. and less in a well-marked depression off the west of Ireland, 29·8 ins. and less in a large shallow disturbance lying over the south-west of Russia. Depression off our west coasts subsequently travelling away over the Atlantic and barometer rising decidedly in Ireland; shallow disturbance appearing over western Germany.

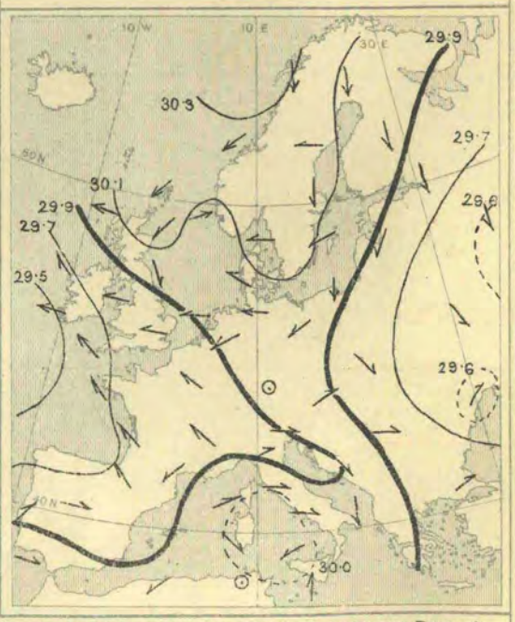
Wednesday, 3rd June.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.



Weather fair over the greater part of western and northern Europe, but dull and showery at some of our own and the French stations. Dull also over Russia, Austria, and the Adriatic, with snow at Archangel and rain at Lemberg; rain falling at Rome and Aumale. Unsettled rainy weather experienced during day in many parts of England, Ireland, and the west of France; thunderstorm occurring at Oxford in evening, as well as at some of the German stations.

Temperature highest, 74° at Constantinople, 71° at Barcelona, Palermo, and La Calle, and 70° at Brindisi and Malta; above 60° over nearly the whole of southern and eastern, as well as in many parts of central, Europe. Lowest, 34° at Archangel, 35° at Ulcaborg, 36° at Haparanda, 37° at Kuopio, and 38° at Bodö; below 50° over northern Europe generally, and also in the north and east of Scotland. Rising during day to 70° or a little above at some of the English and French stations, as well as over southern Europe generally, and to 80° or more in Algeria and the south of Italy.

Wind North-Easterly over Scandinavia, the Baltic, and northern Russia, Easterly over Denmark, the North Sea, and the British Islands (strong in force in the south of Ireland); South-Easterly in the west and north of France, Southerly on the western coasts of the Spanish Peninsula. Light from the South-Westward over Italy, Austria, and the south of Russia, and from the South-Eastward in Algeria, variable in the south of France. Easterly wind subsequently increasing to a gale in the extreme south-west of our Islands.

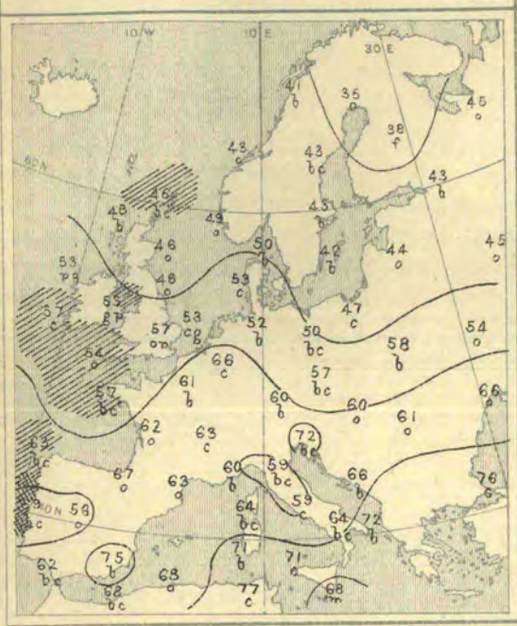
Barometer highest, 30·4 ins. and upwards in an anticyclone lying off the north-west of Norway; 30·0 ins. and upwards over Algeria and the southern parts of Spain and the Mediterranean. Lowest, 29·6 ins. and less in a large depression lying to the south-westward of our Islands, 29·7 ins. and less in a shallow system lying over the south-west of Russia. Former disturbance spreading slowly north-eastwards over the United Kingdom during day; small secondary systems beginning to appear over France and the Bay of Biscay.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

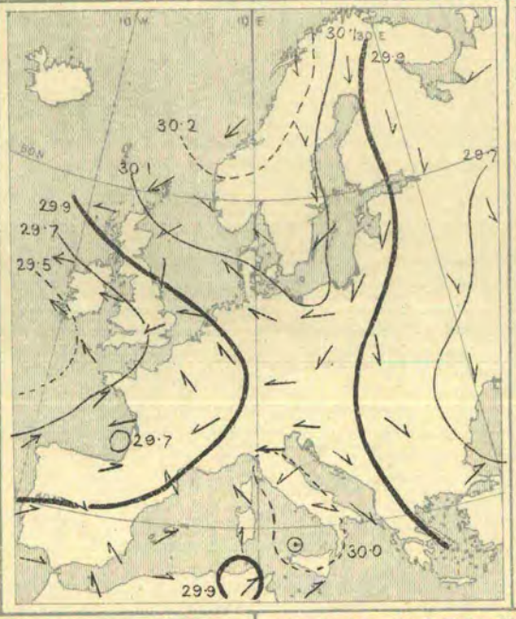
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 4th June.

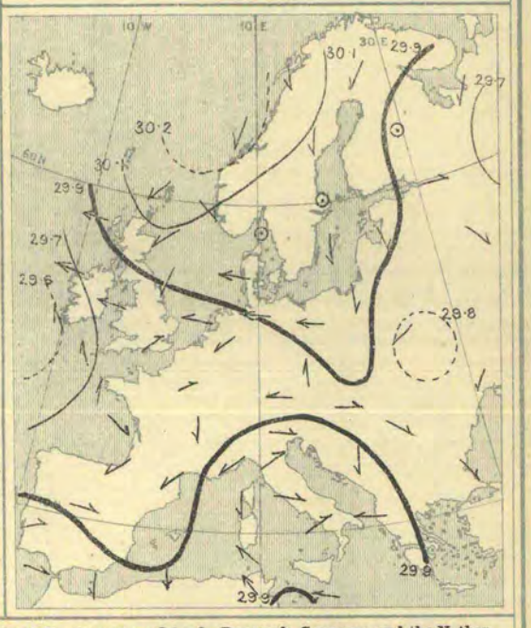
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather dull over the greater part of our Islands and France, as well as at many of the Russian and Austrian stations; showers reported over Ireland and England, and snow falling at Helsingfors. Fine over Sweden, Denmark, the Baltic, and the greater part of central and southern Europe. Weather clearing later in the extreme south of England, but heavy rain falling over our midland and northern counties; thunderstorms observed in many parts of England, and also at Clermont and Constantinople.

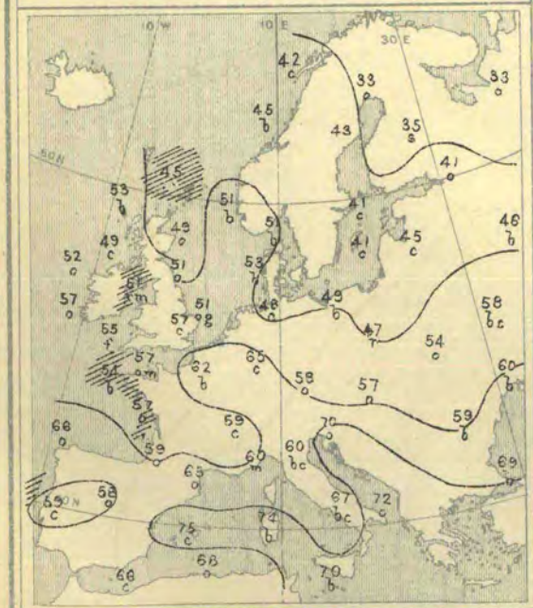
Temperature highest, 77° at La Calle, 76° at Constantinople, 74° at Palma, and 72° at Trieste, Brindisi, and Barcelona; above 65° in most parts of southern and eastern Europe. Lowest, 35° at Haparanda, 38° at Uleaborg and Kuopio, 40° at Hangö and Helsingfors, and 41° at Bodö; below 45° over northern Europe generally, and below 50° over the northern parts of our Islands. Daily maxima below 55° in the north and east of the United Kingdom, but thermometer exceeding 65° at some of our central and southern stations, and exceeding 75° in many parts of France and southern Europe.

Wind Easterly (South-East to North-East) over our Islands, Denmark, Germany, and the Netherlands; fresh or strong in force on our west and north-west coasts, with a gale at Malin Head. Light or moderate from the Northward over Sweden, Russia, Austria, and eastern Germany. Variable in Italy and Algeria, South-Westerly or Westerly over Spain and the extreme south of France. Subsequently veering to the South-Westward in the south-east of England; strong winds in north-west subsiding gradually.

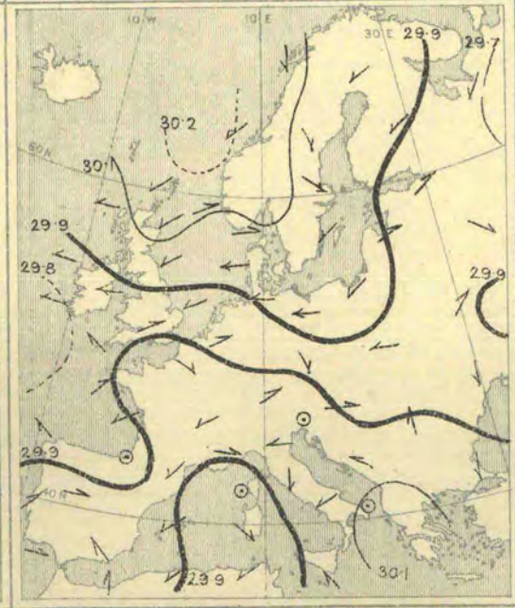
Barometer highest, 30·2 ins. and upwards in an anticyclone over Norway, 30·0 ins. and upwards in another system lying over Italy and the adjacent parts of the Mediterranean. Lowest, 29·5 ins. and less in a well-marked depression lying to the south-westward of our Islands, 29·6 ins. and less in a shallow system over the extreme south of Russia. Shallow disturbances lying over France and the Bay of Biscay in morning, and subsequently advancing northwards over England; depression to south-westward of our Islands moving away over the Atlantic.

Friday, 5th June.

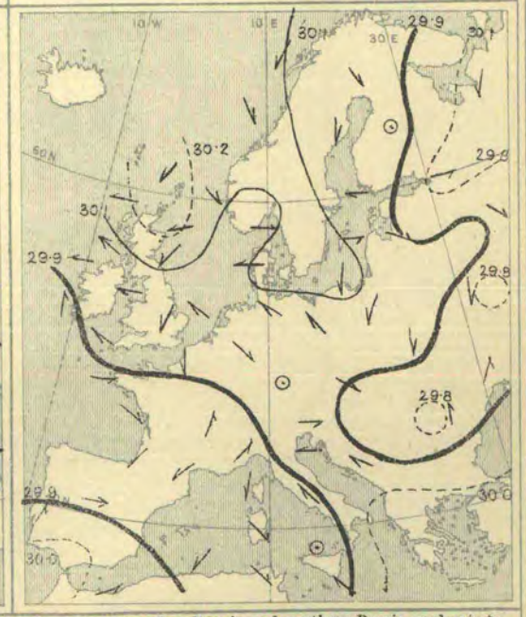
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather cloudy over the greater part of western, central, and northern Europe, with fog in the south-west of England, heavy rain over our midland and northern counties, and snow in Finland. Fine over Italy, Austria, and some parts of Russia, as well as over Denmark, the Baltic, and in the north-west of Scotland. Rain falling during day in many parts of Ireland, England, and the Baltic; thunderstorms occurring at several of the French stations.

Temperature highest, 75° at Palma and Sfax, 74° at Cagliari, 72° at Brindisi, and 70° at Trieste and Malta; above 65° at nearly all the Mediterranean and Adriatic stations, and below 60° in some parts of France and Belgium. Lowest, 33° at Archangel and Haparanda, 35° at Kuopio, 37° at Uleaborg and Helsingfors, and 40° at Hangö; below 45° over Sweden and northern Russia generally, and below 50° in the north of our Islands. Remaining below 60° all day in many parts of the United Kingdom, but reaching 70° in London, and exceeding that point at several of the French, German, and Austrian stations; exceeding 85° in many parts of Italy and exceeding 100° at Biskra (Algeria).

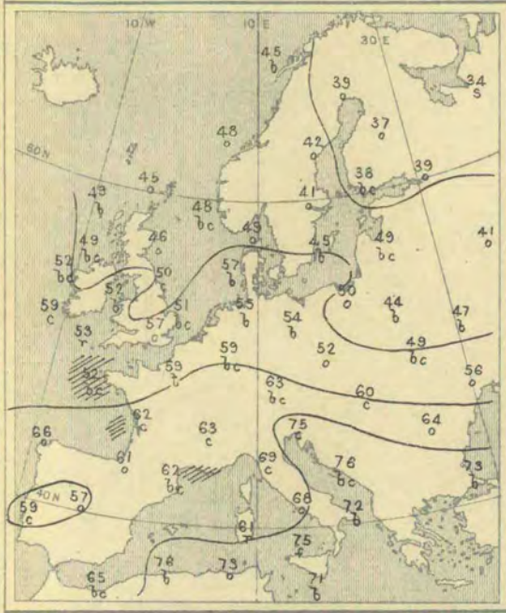
Wind light or moderate from the Northward over Scandinavia and northern Russia, moderate to strong from the Eastward over the North Sea and the greater part of our Islands. South-Westerly in the extreme south-east of England, the Channel, and north of France, as well as in the western parts of the Iberian Peninsula. Light and variable over southern and eastern Europe, and also at the Algerian stations. No important change occurring during day.

Barometer highest, 30·1 ins. and upwards in a large anticyclone lying over Norway, Scotland, and the adjacent parts of the Atlantic, as well as in a smaller system over Greece and the south of Italy. Lowest, 29·7 ins. and less in a shallow depression over northern Russia, 29·8 ins. and less in another lying off the south-west of Ireland, 29·9 ins. and less in a third (very shallow) disturbance over Algeria and the central parts of the Mediterranean. Depression to the south-westward of our Islands disappearing later, but shallow disturbances forming over France and the Bay of Biscay.

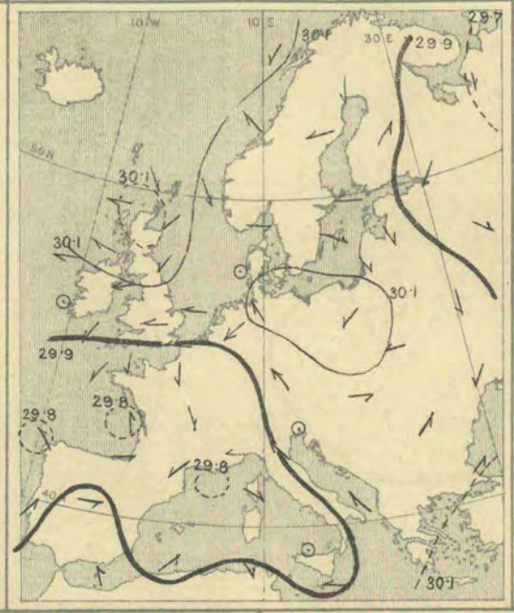
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons

Saturday, 6th June.

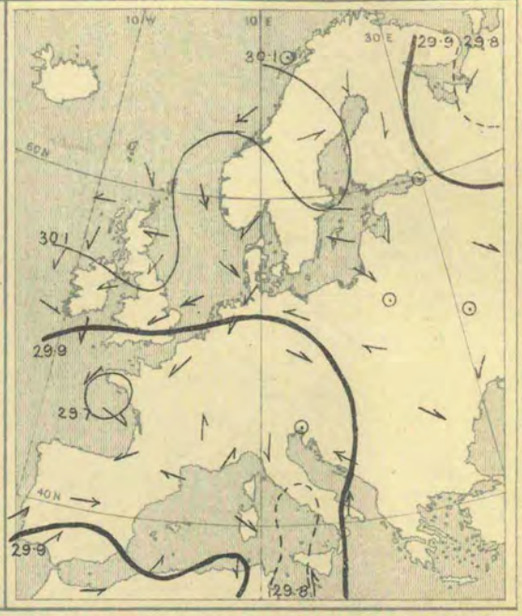
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright at some of the Mediterranean stations, and at most of those in central Europe and in Ireland and Scotland; cloudy or overcast elsewhere, especially over the southern parts of England; rainy over our south-western counties, thundery at Paris and unsettled generally. Rainy later at several of our south-western stations, showery in the north-east; thunder showers in many parts of France, central Europe and the Baltic Provinces.

Temperature low for time of year in almost all countries. Morning readings exceeding 70° over Algeria, at Malta, Palermo, on the shores of the Adriatic, and at Constantinople, as well as at Barcelona; exceeding 60° at most of the Spanish and southern French stations, but much lower elsewhere. Lowest, 34° at Archangel, 37° at Knoplo and Hangö, 39° at Haparanda and St. Petersburg, and below 50° over Scotland, nearly the whole of northern Europe, and over central Russia. Daily maxima exceeding 60° at our south-western and southern stations and in Germany, exceeding 70° over the southern parts of France and Austria, and exceeding 80° in the south of Italy, at Monaco, and Nice, and exceeding 90° in several parts of Algeria (102° at Biskra). Cold and raw over south of England at night.

Wind Easterly to Northerly over Scandinavia, the British Islands, and the north and north-west of France—light to fresh in force; light from East and South-East over south Germany, Westerly to North-Westerly over the Baltic, very variable and light elsewhere. Becoming variable over the Baltic later and increasing considerably from the Eastward over the southern counties of England and the English Channel. Little change of importance elsewhere.

Barometer highest, 30·2 ins. and more to 30·1 ins. over the northern half of our Islands and off the west of Norway, and exceeding 30·1 ins. in a secondary anticyclone over north Germany. Lowest, 29·7 ins. and less in a shallow depression over the north of Russia, 29·8 ins. and less in others over the Bay of Biscay and to the westward of Corunna. Depression over Bay of Biscay moving north-eastwards later, and barometer falling over France, the Channel, and south of England.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During the greater part of this week pressure has been high over northern Europe, and also over Algeria and the Iberian Peninsula, while it has been comparatively low in the extreme west on the one hand and over Russia on the other. The western low-pressure system soon spread eastwards, and united with that over Russia, but after Wednesday the latter began to fill up. The northern high-pressure system then spread somewhat to the southward and the large Atlantic depression filled up, but small disturbances continued to appear over France and Germany.

The wind has consequently been very variable, though mainly Northerly to Easterly over the northern countries, and South-Westerly to North-Westerly in the south. The weather has been rainy and very unsettled except in the north, heavy rains have fallen in many parts both of the British Islands and the Continent, and thunderstorms have occurred frequently. The high temperatures noticed at the beginning of the period soon gave way, and as the end of the week drew near the air became really cold over the north-western districts generally.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 128.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	7·9	?	7	?	EASTBOURNE	63·7	?	57	?
OSWALDKIRK (Yorkshire)	58·9	?	51	?	TORQUAY	38·4 *	?	35 *	?
WORKSOP	26·4	−12·0	23	−11	ARLEY COTTAGE (County Cavan)	22·6	?	19	?
THURCASTON (Leicestershire)	30 8	−10·1	27	− 7					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 23.] *Third Series.* WEEK ENDING SATURDAY, 13TH JUNE, 1891. [*Price 6d.* [*Annual subscription, post paid.* £1 10*s.* 0*d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 134.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	For the Week. Difference from Mean.	For the Week. Below 42°	For the Week. Difference from Mean.	From January 4th, 1891. Above 42°	From January 4th, 1891. Difference from Mean.	From January 4th, 1891. Below 42°	From January 4th, 1891. Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH	71	30	57·1	40·6	48·3	3 below.	50	− 8	4	+ 2	466	+ 25	621	+ 79
1. SCOTLAND, EAST	76	30	60·5	40·4	49·8	3 below.	61	−15	4	+ 4	509	− 92	670	+101
2. ENGLAND, N.E.	71	37	57·0	43·4	49·8	4 below.	55	−25	0	− 1	468	−127	593	+ 95
3. ENGLAND, EAST	73	37	59·3	43·8	51·0	5 below.	63	−30	0	− 1	636	−121	689	+128
4. MIDLAND COUNTIES	73	37	62·6	43·3	52·3	4 below.	72	−22	0	0	692	− 88	668	+116
5. ENGLAND, SOUTH	76	37	63·2	45·4	53·7	3 below.	82	−18	0	0	732	−114	565	+149
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST	70	37	61·8	43·4	52·0	2 below.	70	−10	0	0	617	− 9	463	+ 46
7. ENGLAND, N.W.	66	32	60·0	43·6	51·2	4 below.	64	−22	0	0	619	− 42	451	+ 37
8. ENGLAND, S.W.	74	34	63·2	45·8	53·8	2 below.	83	− 9	0	0	734	− 71	434	+118
9. IRELAND, NORTH	71	38	60·5	44·7	52·0	2 below.	70	−11	0	0	667	− 54	390	+ 28
10. IRELAND, SOUTH	70	39	62·6	46·2	53·9	2 below.	83	− 7	0	0	839	− 27	309	+ 31
— CHANNEL ISLANDS	65	44	53·8	49·5	53·8	3 below.	82	−14	0	0	857	− 58	162	+ 40

Rainfall.

DISTRICTS. (See p. 134.)	For the Week. Number of Rainy Days.	For the Week. Total Fall.	For the Week. More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	From January 4th, 1891. Difference from Mean.	From January 4th, 1891. Total Fall.	From January 4th, 1891. Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH	1	1	6 less.	98	− 9	18·7	− 1·0
1. SCOTLAND, EAST	1	less than ½	5 less.	64	−21	8·1	− 4·3
2. ENGLAND, N.E.	1	less than ½	4 less.	71	− 9	7·4	− 2·5
3. ENGLAND, EAST	1	less than ½	5 less.	76	− 2	8·0	− 1·8
4. MIDLAND COUNTIES	0	—	5 less.	70	− 6	5·2	− 2·1
5. ENGLAND, SOUTH	1	1	4 less.	66	−10	9·2	− 1·9
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST	1	1	7 less.	73	−18	12·7	− 7·4
7. ENGLAND, N.W.	0	—	5 less.	63	−20	8·6	− 4·1
8. ENGLAND, S.W.	1	less than ½	5 less.	68	−18	11·9	− 4·0
9. IRELAND, NORTH	1	less than ½	5 less.	83	−13	9·6	− 4·5
10. IRELAND, SOUTH	1	1	5 less.	76	−15	11·5	− 4·9
— CHANNEL ISLANDS	2	3	1 less.	75	−18	11·3	− 1·8

Bright Sunshine.

DISTRICTS. (See p. 134.)	For the Week. Hours recorded.	For the Week. Difference from Mean.	For the Week. Percentage of possible Duration.	For the Week. Difference from Mean.	From January 4th, 1891. Hours recorded.	From January 4th, 1891. Difference from Mean.	From January 4th, 1891. Percentage of possible Duration.	From January 4th, 1891. Difference from Mean.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH	60	+ 5	49	+ 4	643	+ 94	32	+ 4
1. SCOTLAND, EAST	63	+22	52	+17	651	+ 32	33	+ 1
2. ENGLAND, N.E.	37	− 4	31	− 3	594	+ 42	30	+ 2
3. ENGLAND, EAST	34	−17	30	−13	621	− 44	32	− 2
4. MIDLAND COUNTIES	46	+ 1	40	+ 4	604	+ 22	31	+ 1
5. ENGLAND, SOUTH	48	0	43	0	681	+ 59	35	+ 3
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST	59	+14	50	+13	657	+ 58	33	+ 2
7. ENGLAND, N.W.	54	+ 9	46	+ 8	598	+ 7	30	0
8. ENGLAND, S.W.	53	+ 5	47	+ 4	735	+ 45	37	+ 1
9. IRELAND, NORTH	51	+12	46	+11	637	+ 51	32	+ 2
10. IRELAND, SOUTH	54	+10	47	+ 9	693	+ 27	35	+ 1
— CHANNEL ISLANDS	49	− 7	44	− 6	910	+105	46	+ 4

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been fair and dry in all parts of the Kingdom.

Temperature remained low for the time of year until almost the end of the week, when it rose considerably, and maxima ranging from 70° to 76° were recorded in many parts of Great Britain and 70° to 71° in Ireland. The lowest of the minima, which occurred on varying dates, ranged from 30° in the north and east of Scotland and 32° in "England N.W." to 39° in "Ireland S." and 44° in the "Channel Islands." The average readings for the week have ranged from 2° below the mean in some of the western and south-western districts to 4° below over northern and central England, and to as much as 5° below in "England E."

Rainfall has been very slight; in most districts there has been a mere trace, but at the extreme southern stations the fall has been less small, and in the "Channel Islands" it amounted to three-tenths of an inch.

Bright Sunshine has been more prevalent, as a whole, than it was during the previous week, and in most districts has exceeded the mean for the time of year. It has been most prevalent in the north and west, the percentage of the possible duration varying from 49 to 52 in Scotland, from 46 to 47 in Ireland, and from 30 to 47 in England.

Barometer and Wind.—The distribution of pressure during this period has been generally anticyclonic, although some depressions moving eastwards and north-eastwards over France and the Netherlands have at times caused cyclonic winds and weather over our southern districts. Light to moderate North-Easterly breezes were experienced over our Islands during the earlier days of the week, and these were followed by light Northerly and finally by light Westerly breezes.

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II.—DATA from which the SUMMARY on page 133 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	51	38	50·1	42·3	45·9	− 2·9	27	0	2	0·24	−0·21	*	*	*	*
	Stornoway ⚓	56	37	53·1	41·9	47·1	− 3·8	36	0	1	0·03	−0·63	45·5	+4·7	38	+ 4
	Wick ⚓	58	35	54·1	41·3	47·3	− 4·0	40	2	1	0·05	−0·35	*	*	*	*
	Lairg ⚓	62	30	58·1	38·2	47·5	− 4·7	54	11	1	0·04	−0·50	*	*	*	*
	Glencarron ⚓	64	36	60·3	39·6	49·2	− 2·1	60	7	1	0·19	−1·01	*	*	*	*
	Fort Augustus ⚓	71	34	61·2	39·9	49·8	− 3·4	63	6	? 0	? —	? −0·49	55·3	?	45	?
	Fort William ⚓	67	38	62·6	41·2	51·2	− 2·7	68	2	2	0·03	−0·87	78·4	?	64	?
1. SCOTLAND, E.	Nairn ⚓	62	33	58·1	40·1	48·5	− 5·2	53	5	0	—	−0·39	*	*	*	*
	Aberdeen ⚓	60	35	57·1	41·9	49·0	− 3·8	49	0	1	0·06	−0·34	67·1	+20·8	55	+17
	Braemar ⚓	70	30	60·4	35·8	47·2	− 4·1	62	17	0	—	−0·55	77·6†	? †	64†	?†
	Ochtertyre ⚓	76	35	67·9	40·0	53·0	− 0·6	85	6	1	0·03	−0·57	*	*	*	*
	Leith ⚓	76	41	61·3	42·7	51·4	− 3·2	66	0	1	0·05	−0·34	*	*	*	*
	Marchmont ⚓	69	38	58·4	41·9	49·6	− 3·1	54	0	1	0·03	−0·49	57·8	?	48	?
2. ENGLAND, N.E.	Alnwick Castle ⚓	63	40	55·0	44·7	49·5	− 3·1	53	0	1	0·13	−0·27	*	*	*	*
	Durham ⚓	71	41	59·8	42·2	50·4	− 3·9	59	0	3	0·03	−0·39	34·8	− 4·2	29	− 4
	Shields ⚓	68	40	56·1	42·4	48·8	− 4·6	48	0	0	—	−0·39	*	*	*	*
	Scarborough ⚓	69	43	55·1	45·3	49·9	− 4·4	55	0	0	—	−0·45	*	*	*	*
	York ⚓	68	37	60·9	39·9	49·7	− 5·7	63	6	0	—	−0·50	39·0	− 0·8	33	− 2
	Spurn Head ⚓	67	43	55·3	46·1	50·4	− 4·3	59	0	0	—	−0·35	*	*	*	*
3. ENGLAND, E.	Hillington ⚓	71	37	58·9	42·3	50·0	− 5·6	56	0	0	—	−0·49	32·1	−13·9	28	−12
	Yarmouth ⚓	64	43	55·1	46·3	50·4	− 4·3	59	0	1	0·01	−0·42	*	*	*	*
	Geldeston ⚓	72	39	58·0	43·4	50·2	− 5·3	57	0	1	0·02	0·36	30·4	−20·0	27	−17
	Cambridge ⚓	73	40	62·9	44·0	52·8	− 3·9	76	0	0	—	0·51	31·6	−14·0	23	−12
	Rothamsted ⚓	73	40	61·5	42·9	51·6	− 3·9	67	0	1	0·01	−0·49	42·5	?	37	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall) ⚓	70	37	61·4	42·0	51·0	− 4·7	63	0	0	—	−0·50	*	*	*	*
	Loughborough ⚓	73	41	63·6	44·4	53·3	− 3·8	79	0	0	—	−0·51	*	*	*	*
	Stamford (Ketton Hall) ⚓	72	38	62·6	41·9	51·5	− 5·6	67	0	0	—	?	*	*	*	*
	Cheadle ⚓	67	40	60·8	43·2	51·4	− 2·0	66	0	0	—	−0·66	*	*	*	*
	Churchstoke ⚓															
	Hereford ⚓	72	40	65·5	43·8	53·9	− 2·5	83	0	0	—	−0·50	*	*	*	*
	Cirencester ⚓	67	37	61·3	42·7	51·3	− 3·4	65	0	1	0·01	−0·53	52·6	+ 7·9	46	+ 7
	Oxford ⚓	72	42	63·3	45·0	53·5	− 2·9	81	0	0	—	−0·50	50·7	+ 6·4	44	+ 6
5. ENGLAND, S.	London ⚓	76	41	64·3	45·4	54·2	− 3·6	85	0	0	—	−0·48	44·9 †	+ 2·7†	40†	+ 3†
	Strathfield Turgiss ⚓	76	37	67·7	42·8	54·4	− 2·0	87	0	1	0·02	−0·43	*	*	*	*
	Dungeness ⚓	60	37	58·0	46·4	51·8	− 4·7	69	0	2	0·25	−0·13	*	*	*	*
	Hastings (St. Leonards) ⚓	62	42	59·8	46·4	52·6	− 4·2	74	0	2	0·20	−0·20	47·1	− 5·9	42	− 5
	Southampton ⚓	75	38	67·9	46·0	56·2	− 1·4	99	0	1	0·04	−0·40	53·0	+ 4·3	47	+ 5
	Hurst Castle ⚓	65	41	62·0	47·1	54·0	− 3·9	84	0	1	0·04	−0·41	*	*	*	*
	Stowell ⚓	69	39	63·0	44·0	52·8	− 3·6	76	0	0	—	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart) ⚓	69	37	63·6	41·7	51·9	− 2·0	71	1	1	0·07	−1·02	*	*	*	*
	Glasgow ⚓	70	40	61·8	43·3	51·9	− 1·8	69	0	1	0·06	−0·54	47·1	+ 9·9	39	+ 8
	Ardrossan ⚓	65	40	60·6	43·7	51·6	− 2·9	67	0	1	0·05	−0·53	*	*	*	*
	Glenlee ⚓												*	*	*	*
	Douglas (Isle of Man) ⚓	65	41	61·1	44·8	52·4	− 1·6	73	0	0	—	−0·50	70·2	+19·1	60	+17
7. ENGLAND, N.W.	Newton Reigny ⚓	66	32	60·9	36·4	47·8	− 5·1	64	16	1	0·01	−0·47	54·9	+ 8·9	46	+ 6
	Stonyhurst ⚓	63	37	61·0	41·9	50·8	− 3·7	62	0	1	0·05	−0·67	59·6	+15·6	51	+13
	Blackpool ⚓	63	40	61·0	45·4	52·7	− 2·4	75	0	0	—	−0·49	51·1	+ 6·1	44	+ 6
	Manchester ⚓	66	37	61·8	42·5	51·5	− 3·5	67	0	0	—	−0·68	*	*	*	*
	Liverpool Obsy. (Bidston) ⚓	63	42	59·7	46·1	52·4	− 3·5	73	0	0	—	−0·41	*	*	*	*
	Llandudno ⚓	64	42	58·0	46·3	51·7	− 4·5	68	0	0	—	−0·41	51·6	+ 9·4	44	+ 7
	Holyhead ⚓	60	44	57·4	46·9	51·8	− 3·5	69	0	0	—	−0·45	*	*	*	*
8. ENGLAND, S.W.	Llandovery ⚓	74	34	67·6	40·4	53·1	− 3·2	84	4	0	—	−0·68	*	*	*	*
	Pembroke ⚓	61	46	59·0	47·6	52·9	− 1·7	76	0	2	0·03	−0·42	63·3	+ 8·9	56	+ 9
	Arlington (N. Devon) ⚓	69	41	62·3	43·9	52·5	− 1·9	74	0	1	0·02	−0·72	*	*	*	*
	Cullompton ⚓	72	39	64·6	43·7	53·4	− 2·5	80	0	0	—	−0·52	48·9	+ 3·1	43	+ 3
	Falmouth ⚓	63	45	60·9	48·6	54·0	− 1·7	84	0	1	0·03	−0·57	49·7	− 2·5	44	− 3
	Plymouth ⚓	72	46	66·5	48·6	57·9	− 0·3	111	0	2	0·15	−0·30	57·0	+ 9·0	51	+ 9
	Prawle Point ⚓	63	46	59·3	47·7	53·1	− 1·6	78	0	1	0·03	−0·32	*	*	*	*
9. IRELAND, N.	Malin Head ⚓	57	44	54·3	46·0	49·9	− 4·7	55	0	1	0·02	?	*	*	*	*
	Londonderry ⚓	71	41	64·4	43·2	53·1	− 2·3	78	0	1	0·08	−0·50	*	*	*	*
	Mullaghmore ⚓	62	44	58·7	46·1	52·0	− 3·1	70	0	3	0·10	−0·53	*	*	*	*
	Belmullet ⚓	63	42	57·6	47·1	52·0	− 2·7	70	0	1	0·15	?	*	*	*	*
	Markree Castle ⚓	67	39	61·0	43·5	51·6	− 1·8	67	0	1	0·04	−0·60	52·9	+14·6	45	+13
	Brookeborough ⚓	69	38	62·7	41·5	51·4	− 2·5	68	1	1	0·05	−0·62	*	*	*	*
	Armagh ⚓	69	38	63·3	40·8	51·3	− 3·1	70	3	1	0·04	−0·44	51·5	+10·7	44	+ 9
	Donaghadee ⚓	67	48	59·9	50·0	54·6	+ 0·4	88	0	2	0·11	−0·34	*	*	*	*
	Edgeworthstown ⚓	71	41	62·3	44·0	52·5	− 1·9	74	0	2	0·16	−0·54	*	*	*	*
10. IRELAND, S.	Dublin ⚓	67	44	61·3	48·3	54·4	− 1·9	87	0	1	0·04	−0·39	60·8	+16·2	52	+13
	Parsonstown ⚓	70	40	64·0	44·1	53·4	− 1·7	80	0	2	0·44	−0·11	45·9	+ 5·7	40	+ 4
	Kilkenny ⚓	69	41	63·6	45·3	53·8	− 1·6	83	0	1	0·03	−0·47	*	*	*	*
	Waterford ⚓	69	39	64·6	44·0	53·6	− 2·9	81	0	0	—	−0·55	*	*	*	*
	Roche's Point ⚓	65	46	61·0	48·3	54·2	− 2·3	85	0	0	—	−0·72	*	*	*	*
	Valencia ⚓	65	41	61·9	48·3	54·6	− 1·1	88	0	3	0·34	−0·40	54·6	+ 7·6	48	+ 7
	Killarney ⚓	67	39	62·4	44·2	52·7	− 2·2	75	0	0	—	?	*	*	*	*
	Foynes ⚓	66	43	62·1	47·1	54·1	− 1·0	85	0	2	0·05	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's) ⚓	61	47	57·1	50·0	53·3	− 2·7	79	0	1	0·01	−0·39	*	*	*	*
	Jersey ⚓	65	44	60·4	49·0	54·3	− 2·9	86	0	3	0·55	+0·12	48·9	− 6·9	44	− 6

Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

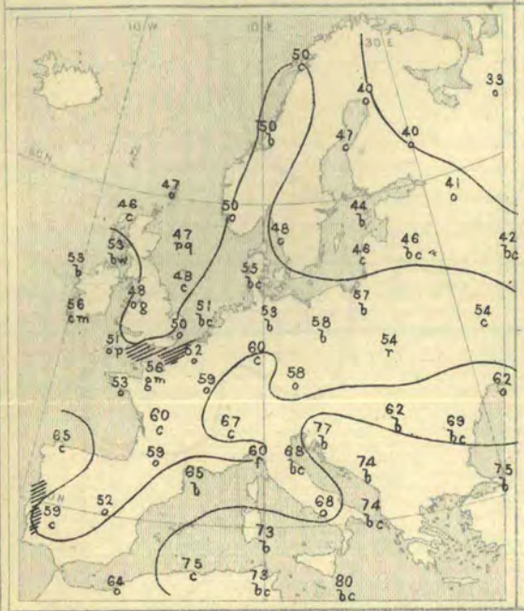
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 7th June.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.

Weather in morning fine over Russia, south-eastern Europe, and all the eastern shores of the Mediterranean, as well as at the Irish stations; cloudy and changeable elsewhere, with rain over Galicia, Poland, and the south-west of England, showers at Aberdeen, thunder and lightning at Sfax (Tunis). Rain at many of the French, German, and Austrian stations later, local showers in Russia and over the south-west of England and east of Scotland; thunderstorms in France.

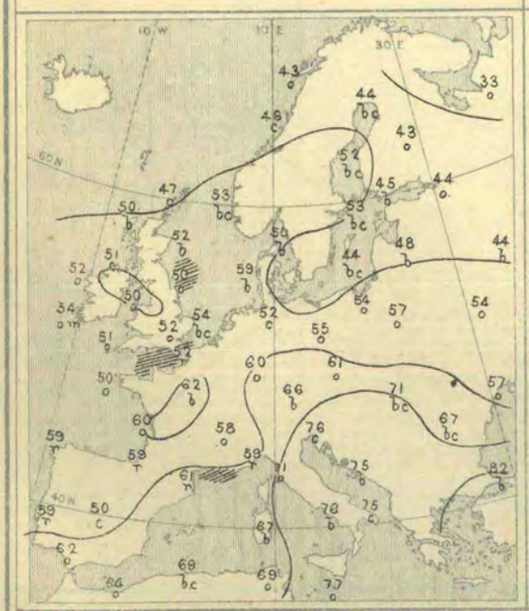
Temperature very low for time of year over the greater part of Europe, high in the extreme south-east. Morning readings, 80° at Malta, and exceeding 70° at Constantinople, Brindisi, Lesina, Trieste, and in several parts of Algeria; exceeding 60° at all the Mediterranean stations. Below 50° over the major part of Great Britain and northern Europe, and low as as 33° at Archangel, 40° at Haparanda and Kuopio, 41° at St. Petersburg, 44° at Stockholm, 46° in the north-east of Scotland. Rising to 60° or more at a few of our western stations later, but not exceeding 57° in London. Ranging from 80° to 90° over Italy, and exceeding 90° over central Algeria.

Wind Northerly to North-Easterly over nearly the whole of northern and north-western Europe—moderate in most places, but strong in the English Channel; mainly Westerly to Southerly over the Mediterranean, extremely variable elsewhere. No change of importance later.

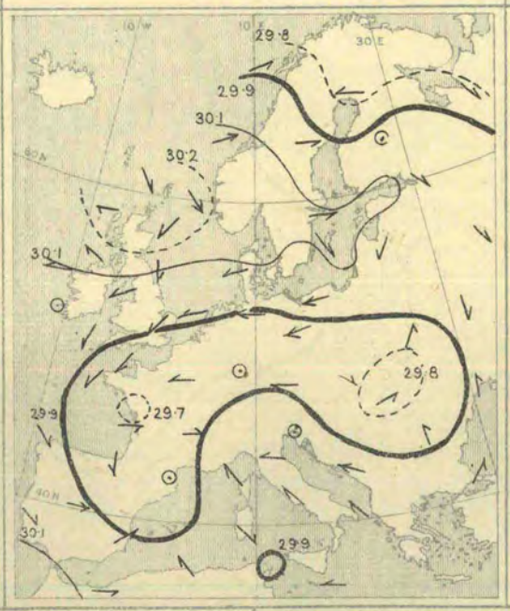
Barometer highest, 30·3 ins. and more to 30·1 over southern Russia, the Black Sea, and Asia Minor; 30·1 and more to 30·0 ins. over the northern parts of the British Islands and Scandinavia; exceeding 29·9 ins. over Algeria and the south of Spain. Lowest, 29·7 ins. and less in depressions over France and off Corunna; 29·8 ins. and less over northern Russia. Little change later.

Monday, 8th June.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

Weather in morning fine and bright over Denmark, the southern half of Scandinavia, many parts of Baltic, and in Italy; cloudy in other places, dull and unsettled over the Continent as a whole, rainy in the Straits of Dover. Rain later throughout France and western Germany (heavy in many places) and thunder in many localities; showers over our southern counties and in some parts of Russia; fine elsewhere; lightning at Jersey.

Temperature still very low for time of year over the northern and western countries, high over Italy and south-eastern Europe. Morning readings exceeding 80° at Constantinople, exceeding 70° at the Italian and Adriatic stations, at Buda-Pesth, and Malta, and touching 70° at Barcelona. Below 50° over northern Europe, and as low as 33° at Archangel, 43° at Kuopio, 44° at Moscow, St. Petersburg, and Haparanda. Rising to between 60° and 67° in many parts of England later, to 69° at Paris, to upwards of 70° in the south-west of France, and to still higher values over the south of Italy and Austria; air over British Islands dry and harsh, and night cold.

Wind mainly Westerly (South-West to North-West) over northern Europe; North-Easterly over the British Isles, the North Sea, the Channel, and Brittany; Northerly over the Bay of Biscay, Easterly over Germany; North-Westerly to Westerly over Spain; variable from between South-West and South-East over the northern parts of the Mediterranean, blowing strongly over the Channel and north Germany. Very variable and light over central, eastern, and south-eastern Europe. No great change reported later.

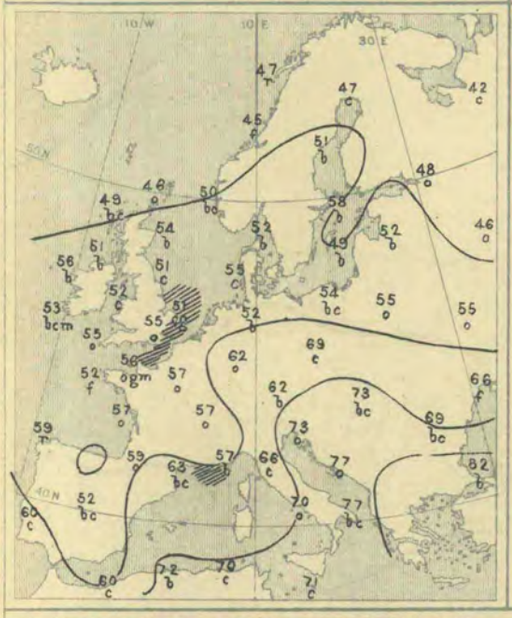
Barometer highest, 30·2 ins. and more to 30·0 ins. in a band extending from the northern parts of our Islands and the neighbouring parts of the Atlantic, across the North Sea, the south of Scandinavia, and the Baltic to Russia and the Black Sea, and exceeding 30·0 ins. over Algeria and the south of Spain. Lowest, 29·8 ins. to 29·7 ins. in a depression over France, and below 29·8 ins. over Austria-Hungary. French depression moving eastwards later, that over Hungary filling up.

Judd & Co. Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

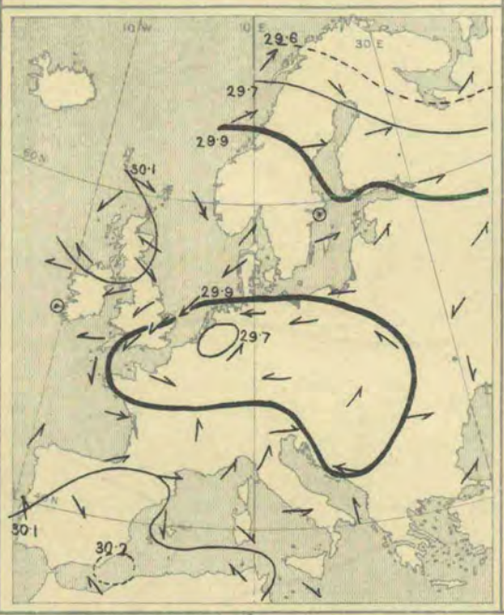
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 9th June.

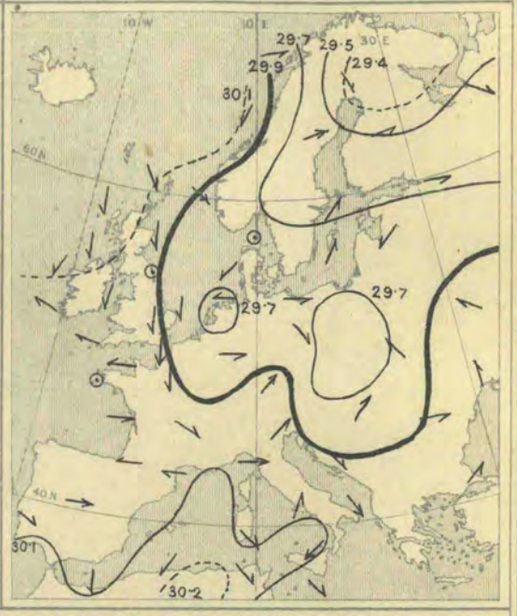
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over Scotland, Ireland, many parts of Scandinavia, and the Baltic; also over the south-western half of Spain, some parts of Algeria, and at Constantinople; more or less cloudy elsewhere, and very unsettled over the Netherlands, Germany, and France, rainy at the Helder, Berlin, Brussels, and Cape Gris Nez, foggy off Ushant. Fine in our Islands later, but considerable rainfall over France, the Netherlands, Germany, and some parts of Austria and Poland; showery at the Scandinavian stations.

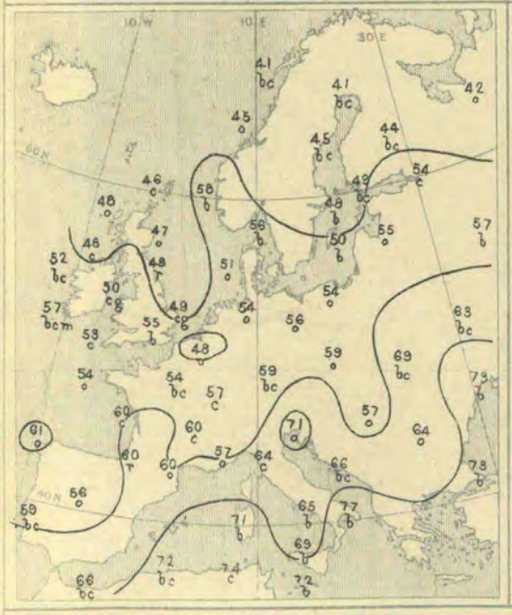
Temperature inclined to rise over north-western Europe, and to fall over France and Italy. Morning readings exceeding 80° at Constantinople, and 70° over many parts of Austria and southern shores of the Mediterranean; exceeding 60° in the south of France and south Germany, lower elsewhere. Lowest, 42° at Archangel and Bodö, 45° at Christiansund, 46° at Moscow and at Sumburgh Head, 49° at Stornoway and Wisby. Rising during day to 60° and more in many parts of our Islands, and to 70° and more in Italy and the south of France, and still higher in Austria and Algeria. Succeeding night very cold over England.

Wind South-Westerly to Westerly over northern Europe (strong at Bodö and Christiansund), very variable and light over Scotland; North-Easterly over north Germany, the Netherlands, England, and the Channel, Easterly in Ireland, South-Westerly to Westerly over southern Europe and in Austria, very variable elsewhere. Becoming more Northerly in the east of England, Holland, and north-east of France later, and blowing strongly at the Helder, freshly in the Straits of Dover.

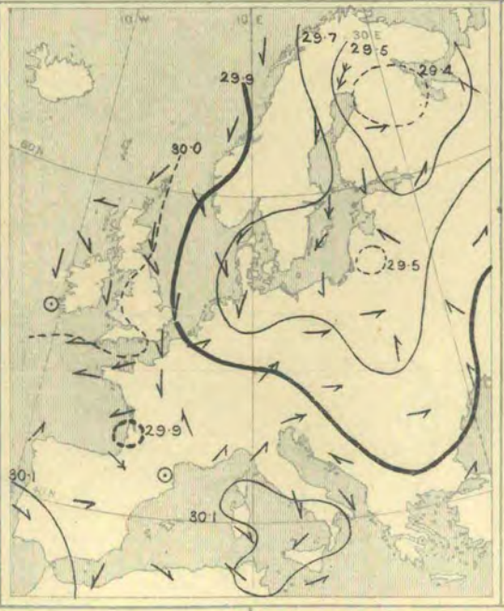
Barometer highest, 30·1 ins. and more to 30·0 ins. over the northern parts of our Islands and the west of Norway, also over Algeria and the southern half of Spain; exceeding 30·0 ins. in the west and south of Russia and over Asia Minor. Lowest, 29·6 ins. and less over the White Sea, the Kola Peninsula, and Lapland; 29·7 ins. and less in a depression over the Netherlands, the north-east of France, and western Germany. Latter depression moving northwards later and pressure giving way slightly all over the United Kingdom.

Wednesday, 10th June.

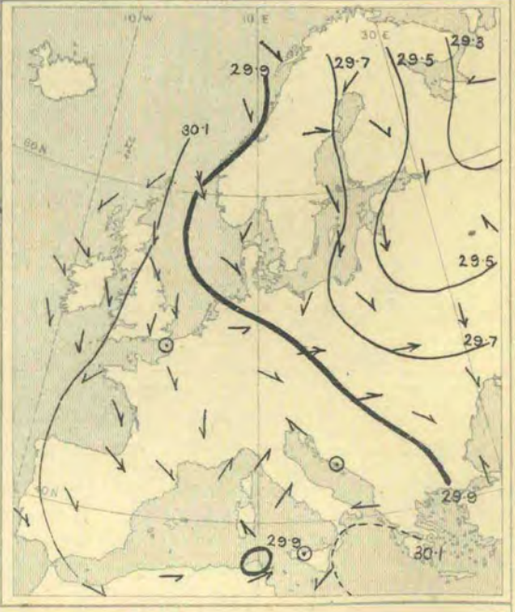
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over Scandinavia and the western and southern parts of the British Islands, also over the southern and eastern shores of the Mediterranean, the shores of the Black Sea, and in central Russia; cloudy or overcast elsewhere, with rain at Haparanda, Münster, and Biarritz. Heavy rain in the extreme south-west of France later, and considerable quantities in some parts of Austria and Russia; some showers over Germany, Scandinavia, the north-west of Ireland, and central Italy.

Temperature fallen decidedly over central Europe and in Scotland, still very low for time of year in nearly all countries; exceeding 70° in extreme south of Russia, at Brindisi, Malta, and some Algerian stations; below 50° over nearly the whole of north-western and northern Europe, and as low as 37° at Uleaborg, 41° at Bodö, 42° at Archangel, 45° at Hernösand, 46° at Sumburgh Head, and 48° at Malin Head and Shields. Rising later to 61° or more in Ireland, the southern parts of England, and over France and south Germany; exceeding 70° in south Austria and Italy, and exceeding 80° over Algeria. Night very cold in our Islands.

Wind mainly Northerly (but variable) over the British Islands, Scandinavia, and the Baltic, and blowing a gale in some parts of the Gulfs of Bothnia and Finland; Westerly and South-Westerly over Spain and central and southern Europe (very strong at Prague), South-Easterly over southern Russia. Becoming more Northerly over France and Spain later, and remaining so over the United Kingdom.

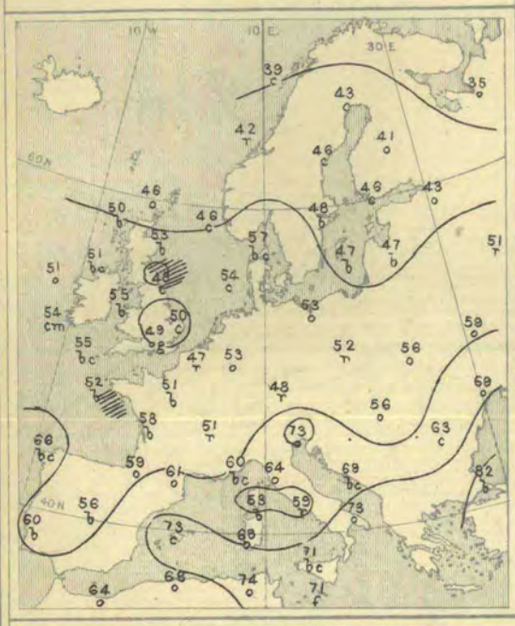
Barometer highest, 30·1 ins. and more to 30·0 ins. in an anticyclone over the Mediterranean, and in another spreading from the Atlantic over the south-west of Spain; 30·0 ins. and more over all the western and northern parts of our Islands, and also over the south-east of Russia. Lowest, 29·4 ins. and less in a depression over the north of Finland, 29·5 ins. and less in a secondary system over the Baltic Provinces, and 29·7 ins. and less over Hanover. Gradients irregular. Rising slowly over the United Kingdom and France later.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

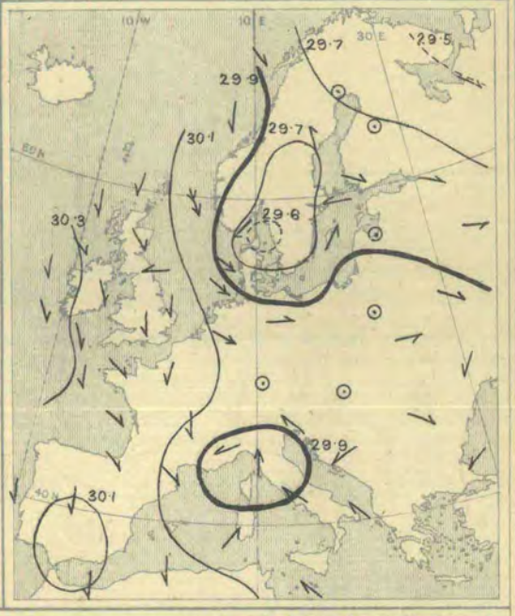
Thursday, 11th June.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.



Weather in morning fine over the British Islands, France, and Spain—at most stations clear and bright; cloudy or dull over northern, eastern, and central Europe, and over many parts of the Mediterranean, with rain in several localities. Some rain later at several of the more southern of the Continental stations, large quantities over Italy and at Croisette, but weather fair and dry over our Islands.

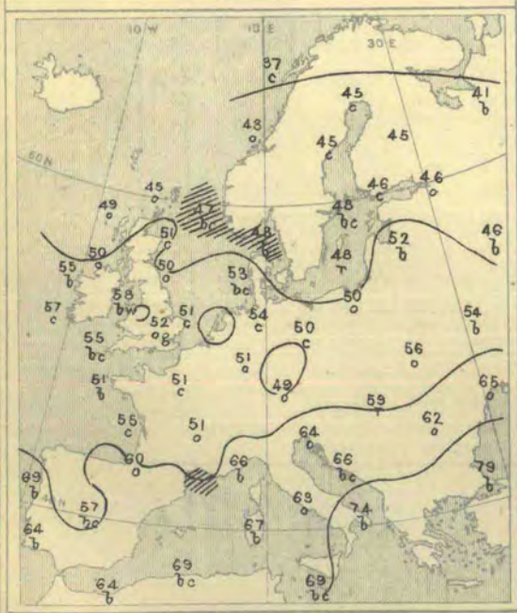
Temperature lower over Europe generally than on previous day, but higher in Scotland. Morning readings, 82° at Constantinople, and exceeding 70° at Trieste, Brindisi, Palermo, Malta, and over Tunis; much lower over Europe, and as low as 31° at Archangel, 39° at Bodö, 43° at St. Petersburg, 46° at Skudesnaes and Sumburgh Head, 47° at Brussels, 48° at Memel, Münster, and Munich, and 49° at Loughborough and in London. Rising later to a little above 60° in many parts of Scotland, Ireland, and England, exceeding 70° over southern and south-eastern Europe as a whole, and exceeding 80° in the south of Italy and over Algeria. Succeeding night very cold over all inland parts of north-western Europe.

Wind North-Westerly to Northerly over northern Europe, the British Isles, the North Sea, and France; Northerly over the Baltic (strong at Riga), North-Westerly over Austria, Southerly over Russia, North-Easterly over the most northern parts of the Mediterranean. Becoming still more Northerly over western Europe later, and blowing strongly over Denmark and the south of Norway. Strong North-Westerly breeze at mouth of Elbe also in evening.

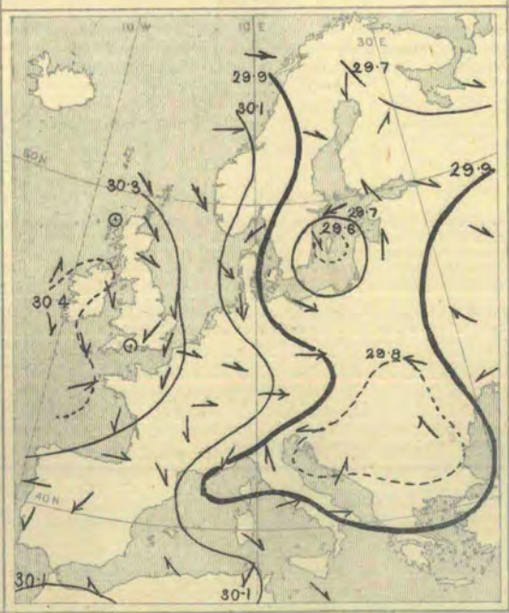
Barometer highest, 30·2 ins. and more over the western parts of the British Islands, Brittany, the Spanish Peninsula, and all adjacent parts of the Atlantic; exceeding 30·0 ins. over the southern parts of Italy, Greece, and the neighbouring parts of the Mediterranean. Lowest, 29·4 ins. and less over northern Russia, and below 30·0 ins. over Corsica, Sardinia, and Tunis. Gradients variable, but mainly favourable for Northerly winds. Still rising slowly over our Islands and western Europe during day, but a well-marked depression forming over the Kattegat.

Friday, 12th June.

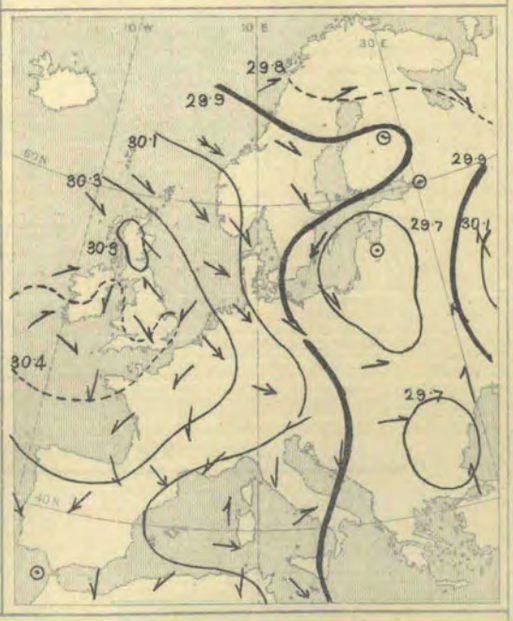
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the western parts of our Islands and France, the Spanish Peninsula, and greater part of the Mediterranean, also over central Russia; fair but cloudy over England. Cloudy or overcast and unsettled at the Baltic, central European and Italian stations, with rain in several places. Rain later at most of the Irish stations and in Norway, fair, as a whole, in other parts of north-western Europe and air very dry. Rain at several of the Baltic, Polish, Hungarian, and south Russian stations—heavy in places.

Temperature fallen over south-eastern Europe. Morning readings exceeding 70° at Brindisi and Constantinople, but below that value at all the other stations. Ranging between 49° and 51° over central England, below 50° in the north generally, and as low as 37° at Bodö, 41° at Archangel, 45° at Kuopio, Hernösand, and Sumburgh Head, 46° at Moscow and Memel, 48° at Swinemünde, and 49° at Oxford. Rising during day to between 60° and 67° over England, to 70° at Parsonstown, to between 70° and 80° in the south of France, Spain, and Italy, and still higher in Algeria, but not touching 60° at the German stations.

Wind mainly Northerly (North-West to North-East) over the northern and western countries and of little force, over the British Islands and France, strong in Denmark and south of Norway; fresh North-Westerly to Westerly over Germany; Southerly over the Baltic Provinces, South-Easterly over Hungary, and South-Westerly over the northern part of the Adriatic, very variable elsewhere. Becoming Westerly and South-Westerly at many of the Irish stations later, and veering more generally towards North-West over Germany.

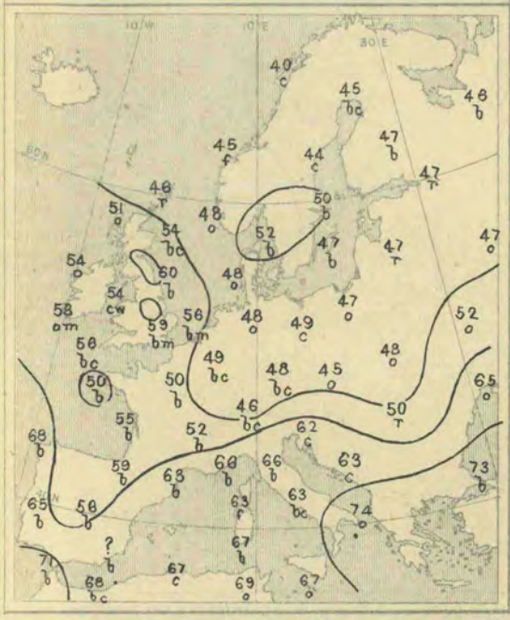
Barometer highest, 30·4 ins. to 30·2 ins. in an anticyclone spreading in from the Atlantic over the British Isles, the North Sea, France, and greater part of Spain; 30·1 ins. to 30·0 ins. in another over the central parts of Russia. Lowest, 29·6 ins. and less in a depression near Wisby, 29·8 ins. and less in another very shallow one over Austria-Hungary, and 29·9 ins. and less in a secondary system over the Gulf of Genoa. Rising slowly over western Europe, as a whole, later, but inclined to fall in Ireland.

Judd & Co Lith. 73 & 75. Farringdon Rd & Doctors' Commons.

Saturday, 13th June.

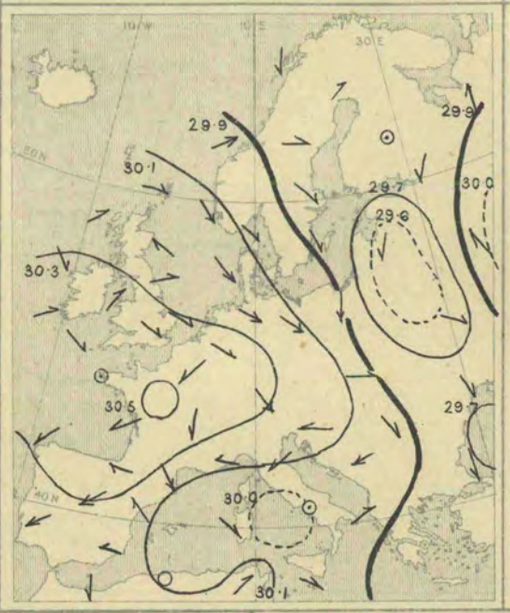
Temperature and Weather.

8 a.m.

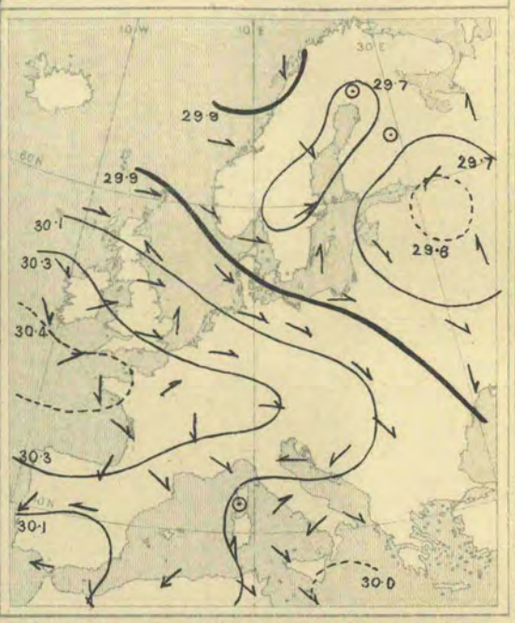


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over the greater part of southern and western Europe, in England, the southern parts of Sweden, and some portions of Finland; cloudy, overcast, and unsettled over Russia and central and south-eastern Europe, with rain in many places. Slight rain at a few of our own stations later and over countries lying to the Eastward of the North Sea, as well as in Russia; a considerable local fall at Brindisi also.

Temperature higher over the British Islands than of late, lower over central Europe; morning readings below 70° except in extreme south-east, below 60° except over the most southern countries, and below 50° over northern and central Europe. Lowest of all, 40° at Bodö and 44° to 46° over the northern parts of Scandinavia, as well as over Poland and eastern Germany, 50° at Stockholm, Paris, Vienna, and Hermanstadt. Rising later to between 70° and 76° over England, some parts of France, and Italy, to 80° and more in Spain, and to nearly 110° at Biskra (Algeria), but failing to reach 60° over Germany and Austria.

Wind moderate Westerly and South-Westerly over the United Kingdom, Westerly to North-Westerly over Scandinavia; Northerly to North-Westerly over Germany and Austria, and strong in places; Northerly in France, but Southerly to South-Easterly over central Russia; very variable elsewhere. Complete cyclonic circulation of moderate winds over Mediterranean. Falling light and variable over central Europe and the Mediterranean later.

Barometer highest, 30·5 ins. and more to 30·1 ins. in anticyclone covering the greater part of western Europe and neighbouring parts of the Atlantic; 30·0 ins. and more to 29·9 ins. in another over Russia. Lowest, 29·6 ins. and less in a depression over the Baltic Provinces; 29·7 ins. and less in another over the Black Sea and in a third over Lapland; 30·0 ins. and less in a fourth over the Mediterranean (between Sardinia and the Italian coast). Falling over the North Sea and northern Europe later and high-pressure area over Russia giving way.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During the earlier part of this week pressure was highest over the northern parts of the British Islands, Scandinavia, and central Russia, lowest over the Bay of Biscay, France, and central Europe, so that cold dry North-Easterly winds prevailed over all the north-western countries, but variable breezes and unsettled weather elsewhere. In the extreme north, however, pressure was already giving way, and the highest pressures were soon transferred to the northern and western parts of the United Kingdom and the neighbouring parts of the Atlantic, while low-pressure systems appeared over northern and central Europe. Under these circumstances a very cold Northerly current spread over the British Islands and nearly the whole of the Continent, and while the weather in our neighbourhood remained dry much rain fell over most parts of the Continent, and hail in places.

Towards the end of the week the high-pressure system in the west began to spread Eastwards over France, and as the wind backed towards West over the United Kingdom the day temperatures rose decidedly. Maxima were recorded in excess of the average for the time of year, but the air continued dry and harsh—albeit with a distinct tendency towards improvement.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 134.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	49·5	?	41	?	EASTBOURNE	?	?	?	?
OSWALDKIRK (Yorkshire)	37·6	?	32	?	TORQUAY	47·4 *	?	42 *	?
WORKSOP	31·0	− 6·3	27	− 5	ARLEY COTTAGE (County Cavan)	57·3	?	49	?
THURCASTON (Leicestershire)	48·7	+ 9·6	42	+ 9					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

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VOL. VIII. No. 24.] *Third Series.* WEEK ENDING SATURDAY, 20TH JUNE, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10*s.* 0*d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 140.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	80	33	60·0	47·4	53·3	1 above.	79	+16	0	− 1	545	+ 42	621	+ 79
	1. SCOTLAND, EAST	82	43	65·6	49·8	57·2	3 above.	106	+23	0	0	615	− 72	670	+101
	2. ENGLAND, N.E.	77	41	65·3	50·1	57·2	2 above.	106	+18	0	0	574	−113	593	+ 95
	3. ENGLAND, EAST	75	45	67·8	50·2	58·4	1 above.	115	+14	0	0	751	−103	689	+128
	4. MIDLAND COUNTIES	79	40	70·0	48·9	58·7	2 above.	117	+16	0	0	808*	− 71	668	+116
	5. ENGLAND, SOUTH	82	39	70·8	50·9	60·2	1 above.	127	+19	0	0	859	− 93	565	+149
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	81	48	64·5	52·3	58·0	3 above.	112	+26	0	0	729	+ 18	463	+ 46
	7. ENGLAND, N.W.	76	47	64·8	51·8	57·8	1 above.	111	+18	0	0	730	− 25	451	+ 37
	8. ENGLAND, S.W.	84	43	67·6	52·2	59·4	2 above.	122	+22	0	0	856	− 48	434	+118
	9. IRELAND, NORTH	81	46	66·1	52·8	59·0	4 above.	119	+20	0	0	786	− 25	390	+ 28
	10. IRELAND, SOUTH	79	43	67·9	51·7	59·3	2 above.	121	+23	0	0	960	− 4	309	+ 31
	— CHANNEL ISLANDS	76	49	65·6	55·1	60·0	2 above.	126	+22	0	0	983	− 36	162	+ 40

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 140.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	9	2 more.	103	− 8	19·6	− 0·8	21	−15	17	−12	664	+ 76	32	+ 3
	1. SCOTLAND, EAST	3	2	4 less.	67	−21	8·3	− 4·6	21	−25	17	−21	672	+ 13	32	0
	2. ENGLAND, N.E.	2	2	2 less.	73	−10	7·6	− 2·7	36	+ 2	31	+ 2	630	+ 40	30	+ 2
	3. ENGLAND, EAST	2	1	4 less.	78	− 3	8·1	− 2·2	47	− 5	41	− 3	668	− 44	32	− 3
	4. MIDLAND COUNTIES	1	2	4 less.	71	− 8	9·5*	− 2·3	53	+11	46	+11	657	+ 31	31	+ 1
	5. ENGLAND, SOUTH	1	1	4 less.	67	−11	9·3	− 2·2	62	+14	54	+14	742*	+ 72	36	+ 3
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	2	2	5 less.	75	−19	12·9	− 7·9	35	− 8	31	− 6	693	+ 49	33	+ 2
	7. ENGLAND, N.W.	3	2	4 less.	66	−20	8·8	− 4·5	46	+ 2	39	+ 2	644	+ 6	31	0
	8. ENGLAND, S.W.	1	less than ½	5 less.	69	−20	11·9	− 4·6	53	+ 8	51	+ 7	793	+ 45	38	+ 2
	9. IRELAND, NORTH	2	3	3 less.	85	−15	9·9	− 4·8	37	− 3	32	− 2	674	+ 48	32	+ 2
	10. IRELAND, SOUTH	1	1	5 less.	77	−17	11·3	− 5·4	49	+ 6	42	+ 5	742	+ 28	36	+ 1
	— CHANNEL ISLANDS	1	less than ½	4 less.	76	−20	11·3	− 2·2	72	+17	64	+15	982	+116	47	+ 5

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been generally fine and dry over all the more southern parts of England and Ireland, but over Scotland and the northern districts of England and Ireland it continued cloudy or dull, with occasional falls of rain, until nearly the end of the week. Thunder and lightning were experienced in many parts of the Kingdom on the 15th, and fog was reported from time to time both on our south-western and north-eastern coasts.

Temperature has exceeded the mean by amounts varying from 1° to 4°. The highest of the maxima, which were registered on the 18th or 19th over England and on the 20th over Scotland, ranged from 84° in "England S.W.," 82° in "England S.," 81° in "Ireland N.," and 80° to 82° in Scotland, to 75° in "England E." The lowest of the minima were recorded either on the 16th or 17th, and varied from 36° in "Scotland N." and 39° in "England S." to 48° in "Scotland W." and 49° in the "Channel Islands."

Rainfall has been rather more than the mean in "Scotland N.," but in all other parts of the Kingdom a deficit is shown. At many of our southern stations there has been no rain whatever.

Bright Sunshine has been in excess of the mean in most of the English districts, as well as in the south of Ireland and the "Channel Islands"; in Scotland, however, there has been very little. The percentage of the possible duration ranged from 64 in the "Channel Islands," and from between 40 and 54 in most parts of England, to 17 in the north and east of Scotland.

Barometer and Wind.—During this period an anticyclone has moved slowly north-north-eastwards from the Bay of Biscay to Scotland. The wind has consequently been mainly South-Westerly to Westerly and light or moderate in force; by the end of the week, however, it had shifted to the Eastward in the south and was increasing somewhat in force.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 139 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	56	39	53·6	44·7	48·8	− 1·0	48	0	4	0·57	+0·10	*	*	*	*
	Stornoway ⚓	61	45	57·7	47·6	52·3	+ 0·2	72	0	5	0·23	−0·44	26·6	−15·1	21	−12
	Wick ⚓	67	44	58·9	46·1	52·1	− 0·2	71	0	5	0·71	+0·30	*	*	*	*
	Lairg ⚓ S	77	36	63·9	47·1	54·9	+ 1·8	90	0	4	0·64	+0·08	*	*	*	*
	Glencarron ⚓ S	75	46	60·0	47·8	53·5	+ 1·2	81	0	6	1·80	+0·58	*	*	*	*
	Fort Augustus ⚓ S	80	43	64·8	49·0	56·4	+ 2·1	101	0	5	0·74	+0·22	16·7	?	14	?
	Fort William ⚓ S	76	48	61·0	49·7	55·0	0·0	91	0	5	1·35	+0·41	20·0	?	16	?
1. SCOTLAND, E.	Nairn ⚓	73	45	65·0	48·4	56·1	+ 1·2	99	0	4	0·18	−0·23	*	*	*	*
	Aberdeen ⚓	70	46	63·9	50·0	56·5	+ 2·3	102	0	3	0·08	−0·32	19·7	−25·5	16	−21
	Braemar ⚓ S	75	43	62·8	48·5	55·2	+ 2·9	92	0	2	0·12	−0·45	19·7 †	? †	16†	? †
	Ochtertyre ⚓ S	82	46	69·4	50·9	59·5	+ 4·6	123	0	3	0·22	−0·41	*	*	*	*
	Leith ⚓	75	48	68·7	52·1	59·8	+ 4·2	125	0	2	0·10	−0·34	*	*	*	*
	Marchmont ⚓ S	70	43	63·7	49·0	55·8	+ 1·9	97	0	2	0·22	−0·38	24·3	?	20	?
2. ENGLAND, N.E.	Alnwick Castle ⚓	67	46	62·1	50·7	56·0	+ 2·1	98	0	1	0·15	−0·30	*	*	*	*
	Durham ⚓	77	48	69·7	50·7	59·5	+ 3·9	123	0	2	0·06	−0·39	43·4	+ 5·9	36	+ 4
	Shields ⚓	71	47	64·3	49·7	56·5	+ 1·8	102	0	2	0·41	+0·01	*	*	*	*
	Scarborough ⚓ 𝔄	75	48	65·0	50·0	57·0	+ 1·4	105	0	2	0·08	−0·37	*	*	*	*
	York ⚓	74	41	68·1	48·0	57·4	+ 0·4	108	0	1	0·20	−0·30	38·4	− 0·6	33	0
	Spurn Head ⚓	68	48	62·6	51·3	56·6	+ 0·7	102	0	1	0·26	−0·09	*	*	*	*
3. ENGLAND, E.	Hillington ⚓ 𝔄	73	45	66·6	50·2	57·8	+ 0·4	111	0	3	0·07	−0·45	38·5	− 6·0	33	− 5
	Yarmouth ⚓	73	48	64·4	51·6	57·6	+ 0·9	109	0	2	0·03	−0·42	*	*	*	*
	Geldeston ⚓	75	47	67·4	49·9	58·0	+ 1·3	112	0	2	0·10	−0·28	41·1	− 7·9	36	− 7
	Cambridge ⚓	75	45	71·0	50·3	59·9	+ 1·5	125	0	1	0·06	−0·46	50·0	+ 5·7	43	+ 4
	Rothamsted ⚓	74	45	69·6	48·8	58·5	+ 1·3	116	0	1	0·08	−0·44	59·9	?	52	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall) ⚓	78	43	69·7	48·3	58·3	+ 0·9	114	0	1	0·02	−0·51	*	*	*	*
	Loughborough ⚓	79	43	72·7	50·7	60·9	+ 2·4	132	0	2	0·36	−0·15	*	*	*	*
	Stamford (Ketton Hall) ⚓	75	42	70·0	48·6	58·6	+ 0·2	116	0	0	—	?	*	*	*	*
	Cheadle ⚓ 𝔄	72	45	65·8	49·5	57·1	+ 1·9	106	0	1	0·40	−0·28	*	*	*	*
	Churchstoke ⚓ 𝔄	75	44	68·9	48·2	57·8	+ 2·4	111	0	1	0·09	−0·41	54·9	+13·7	47	+11
	Hereford ⚓ 𝔄	76	45	72·0	48·9	59·7	+ 1·5	124	0	1	0·10	−0·40	*	*	*	*
	Cirencester ⚓	75	40	69·9	46·0	57·1	+ 0·7	106	0	1	0·20	−0·32	65·3	+21·6	57	+19
	Oxford ⚓	76	47	70·7	50·6	60·0	+ 2·1	126	0	1	0·09	−0·46	58·3	+14·6	51	+13
5. ENGLAND, S.	London ⚓	78	48	72·6	51·7	61·4	+ 1·9	136	0	1	0.23	−0·27	57·1 †	+16·6†	50†	+14 †
	Strathfield Turgiss ⚓ 𝔄	81	39	74·4	46·1	59·3	− 0·9	121	0	1	0·05	−0·42	*	*	*	*
	Dungeness ⚓	73	48	64·9	51·9	58·0	0·0	112	0	0	—	−0·38	*	*	*	*
	Hastings (St. Leonards) ⚓															
	Southampton ⚓	82	48	75·8	52·3	63·2	+ 4·1	148	0	0	—	−0·44	65·7	+17·9	58	+16
	Hurst Castle ⚓	74	48	67·9	52·3	59·6	+ 1·5	123	0	0	—	−0·45	*	*	*	*
	Stowell ⚓ 𝔄	76	48	69·1	51·2	59·5	+ 1·8	123	0	1	0·04	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart) ⚓	73	48	62·5	51·4	56·6	+ 1·9	102	0	5	0·80	−0·35	*	*	*	*
	Glasgow ⚓	78	48	64·8	52·7	58·3	+ 3·0	114	0	3	0·19	−0·44	18·3	−18·8	15	−16
	Ardrossan ⚓	76	48	62·4	51·4	56·5	+ 0·8	102	0	2	0·14	−0·44	*	*	*	*
	Glenlee ⚓ S	81	50	68·0	? 56·4	? 61·8	?+ 7·3	?139	0	1	0·06	−0·70	*	*	*	*
	Douglas (Isle of Man) ⚓	75	48	64·9	49·7	56·8	+ 1·9	104	0	1	0·01	−0·49	54·3	+ 3·8	46	+ 3
7. ENGLAND, N.W.	Newton Reigny ⚓															
	Stonyhurst ⚓	76	48	65·4	51·3	57·9	+ 1·5	111	0	3	0·19	−0·60	41·4	− 1·8	35	− 2
	Blackpool ⚓ 𝔄															
	Manchester ⚓	74	47	65·1	50·9	57·5	+ 1·2	109	0	3	0·07	−0·63	*	*	*	*
	Liverpool Obsy. (Bidston) ⚓	75	51	65·7	53·0	58·9	+ 1·4	118	0	2	0·05	−0·40	*	*	*	*
	Llandudno ⚓ 𝔄	73	50	65·0	52·5	58·3	+ 1·0	114	0	2	0·25	−0·17	50·4	+ 9·3	43	+ 7
	Holyhead ⚓	68	49	62·7	51·1	56·5	− 0·1	102	0	3	0·33	−0·12	*	*	*	*
8. ENGLAND, S.W.	Llandovery ⚓	84	43	73·0	47·9	59·6	+ 2·1	123	0	3	0·15	−0·55	*	*	*	*
	Pembroke ⚓	72	48	61·6	52·0	56·5	+ 0·6	102	0	2	0·10	−0·35	62·2	+ 7·8	54	+ 7
	Arlington (N. Devon) ⚓	75	49	66·4	50·5	58·0	+ 2·1	112	0	1	0·06	−0·74	*	*	*	*
	Cullompton ⚓ 𝔄	78	48	70·7	50·0	59·6	+ 2·2	123	0	0	—	−0·57	53·5	+ 8·5	47	+ 7
	Falmouth ⚓	71	52	66·3	54·1	59·8	+ 2·5	125	0	0	—	−0·60	58·3	+ 5·6	52	+ 5
	Plymouth ⚓	76	52	70·6	57·3	63·5	+ 4·3	151	0	0	—	−0·48	57·9	+10·4	51	+ 9
	Prawle Point ⚓	71	50	64·4	53·4	58·5	+ 2·7	116	0	0	—	−0·38	*	*	*	*
9. IRELAND, N.	Malin Head ⚓	63	50	61·0	52·7	56·6	+ 1·2	102	0	1	0·08	?	*	*	*	*
	Londonderry ⚓	81	51	68·3	54·1	60·7	+ 4·2	131	0	2	0·16	−0·43	*	*	*	*
	Mullaghmore ⚓	73	49	64·0	52·7	58·0	+ 1·8	112	0	3	0·23	−0·44	*	*	*	*
	Belmullet ⚓	71	51	62·0	53·4	57·4	+ 2·0	108	0	2	0·38	?	*	*	*	*
	Markree Castle ⚓	77	46	66·6	51·2	58·4	+ 3·8	115	0	2	0·61	−0·11	36·3	+ 0·2	31	0
	Brookeborough ⚓	80	47	68·1	52·0	59·5	+ 4·3	123	0	2	0·23	−0·45	*	*	*	*
	Armagh ⚓	78	49	68·1	53·0	60·0	+ 4·4	126	0	2	0·25	−0·25	36·5	− 3·0	31	− 3
	Donaghadee ⚓	73	51	67·6	54·3	60·5	+ 5·3	130	0	2	0·07	−0·38	*	*	*	*
	Edgeworthstown ⚓	78	48	69·4	51·4	59·8	+ 4·1	125	0	3	0·68	−0·02	*	*	*	*
10. IRELAND, S.	Dublin ⚓	73	48	69·3	54·9	61·6	+ 4·0	137	0	2	0·27	−0·16	56·9	+14·4	49	+13
	Parsonstown ⚓	78	48	70·0	51·4	60·1	+ 3·9	127	0	2	0·34	−0·23	43·8	+ 3·8	37	+ 2
	Kilkenny ⚓	78	46	69·9	50·3	59·4	+ 2·9	122	0	1	0·16	−0·36	*	*	*	*
	Waterford ⚓	76	45	68·8	49·3	58·4	+ 0·9	115	0	1	0·04	−0·52	*	*	*	*
	Roche's Point ⚓	68	48	62·7	51·4	56·7	− 1·0	103	0	0	—	−0·72	*	*	*	*
	Valencia ⚓	75	49	65·1	53·1	58·7	+ 2·0	117	0	1	0·05	−0·71	47·6	+ 2·0	41	+ 2
	Killarney ⚓	79	43	69·0	50·4	59·1	+ 2·9	120	0	1	0·08	?	*	*	*	*
	Foynes ⚓	79	49	68·7	52·9	60·3	+ 3·8	128	0	1	0·21	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's) ⚓	67	53	63·9	55·7	59·5	+ 2·4	123	0	1	0·01	−0·41	*	*	*	*
	Jersey ⚓	76	49	67·3	54·4	60·4	+ 1·7	129	0	1	0·01	−0·44	71·9	+17·4	64	+15

Stations marked 𝔄 are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

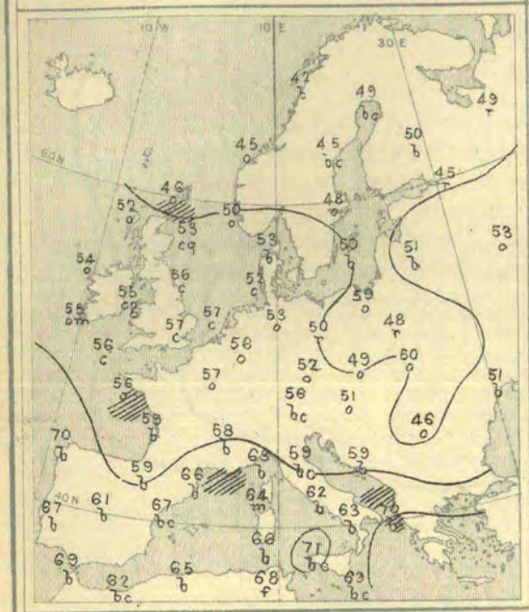
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

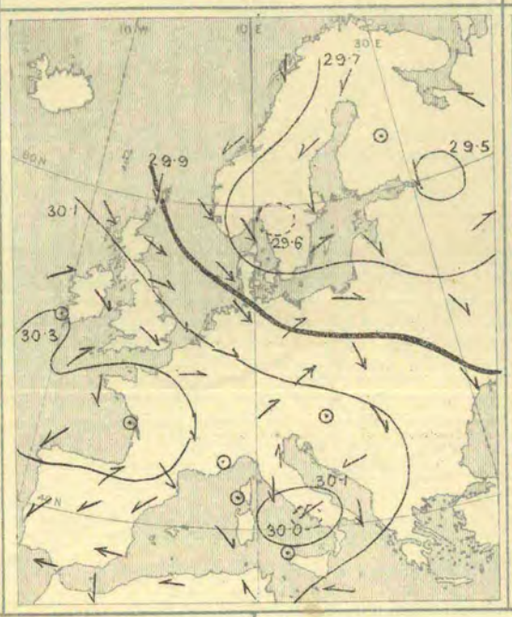
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 14th June.

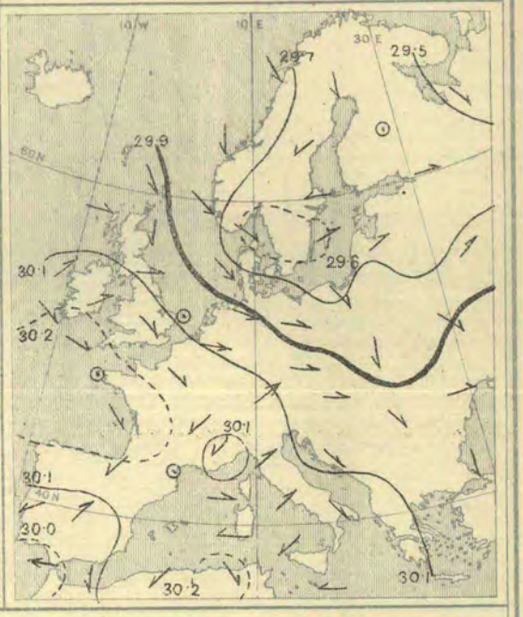
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over southern and south-western Europe, as well as over Sweden, the east of Norway, and Finland; cloudy more or less elsewhere, unsettled over Russia, Austria, and Germany, with rain in some localities. Rain later over all the western and northern parts of our Islands and in Germany—fall largest at the Irish stations, but not heavy anywhere. Appearance of sky unsettled at times in London.

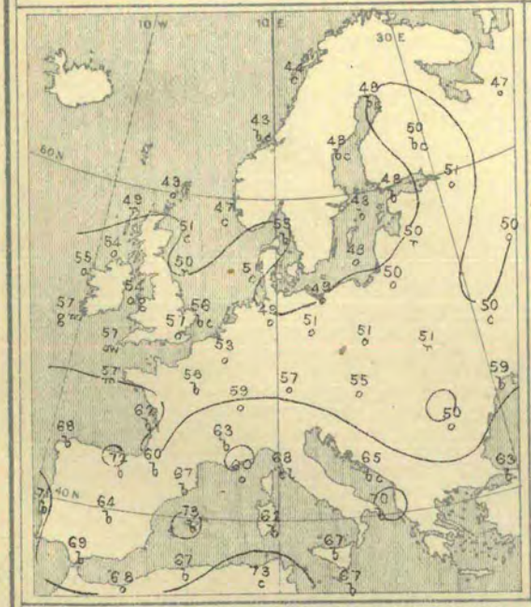
Temperature changing little and irregularly at first. Morning readings below 70° at all stations excepting Brindisi and Palermo, and below 60° over by far the greater part of Europe. Lowest, 42° at Bodö, 45° at Christiansund, Hernösand, and St. Petersburg, 46° at Sumburgh Head, 48° at Stockholm, and 49° at Swinemünde and Cracow. Rising later to between 65° and 69° in many parts of Great Britain, to 70° and more at several French stations, to 84° at Madrid, and to 86° at Lisbon.

Wind moderate Northerly over the northern half of Scandinavia; North-Westerly over Great Britain and the North Sea (strong on Danish coast and at Cuxhaven), South-Westerly over south Germany, North-Westerly over Hungary and southern Russia; very variable elsewhere and light. Becoming more Westerly and much lighter over Great Britain later, and very variable over Ireland. South-Westerly breezes setting in over Italy.

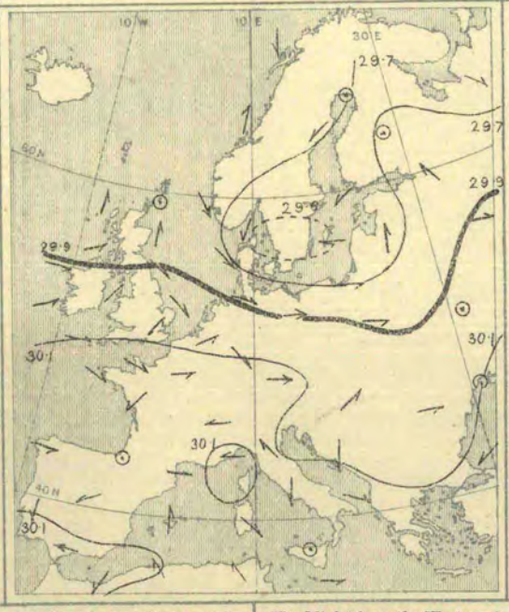
Barometer highest, 30·3 ins. and more to 30·1 ins. in an anticyclone having its central area over the Bay of Biscay and neighbouring parts of Atlantic, but stretching north-eastwards over a great deal of the United Kingdom, the whole of France, Austria, and south Germany. Lowest, 29·5 ins. and less in a depression near St. Petersburg, 29·6 ins. and less in another over the south of Sweden; 30·0 ins. and less in a third (small) near Naples. Falling in our Islands all day—most in north-west. Russian depression moving away in a north-easterly direction.

Monday, 15th June.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

Weather fine over the greater part of France and southern Europe, as well as in Scandinavia and the east of England. More or less cloudy elsewhere, with fog at some of the Channel stations and rain in the north of our Islands, as well as at Riga, Lemberg, and Prague. Showers falling later in all parts of the United Kingdom excepting the extreme south of England, and thunderstorms occurring at many of the English and Irish stations.

Temperature highest, 73° at Palma and La Calle, 71° at Lisbon and Barcelona, 70° at Brindisi, and 69° at San Fernando; above 60° over nearly the whole of southern Europe. Lowest, 43° at Christiansund, 44° at Haparanda, 47° at Archangel, Skudesnaes, and Faerder, and 48° over Sweden and the Gulf of Finland; below 50° in the extreme north of Scotland. Rising during day to between 65° and 70° at many of the English stations, to 75° or more in the south of France, and to 80° or more in some parts of Spain, Italy, and Algeria.

Wind light from the Westward or South-Westward over the greater part of the United Kingdom, and also in the north of France, but Southerly at some of the Scotch stations. Light from North-East in Sweden, strong from North-West in Denmark and the south of Norway, moderate from West over Germany and Austria, and light from the Southward over the Baltic Provinces and the Gulf of Finland. Variable over Italy and the greater part of France, light from the Eastward in Spain, and from the South-Eastward at most of the Algerian stations. Subsequently veering to the North-Westward in Ireland and shifting to the North-Eastward in the north and east of Scotland.

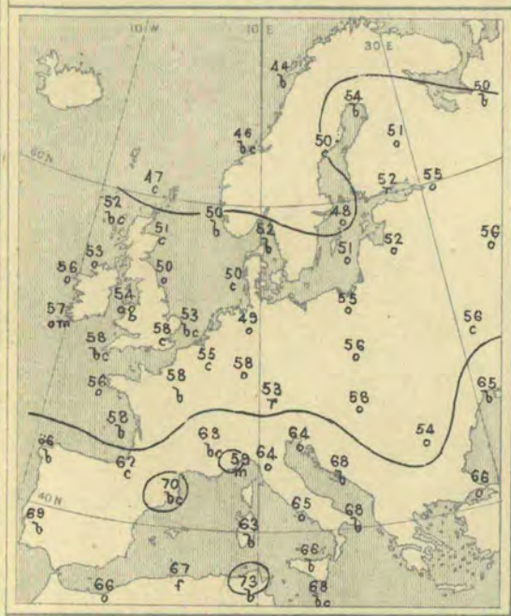
Barometer highest, 30·1 ins. and upwards over the greater part of France, Spain, Italy, and the Mediterranean, as well as in the south of Russia, but below that level in a shallow depression lying off the south of France. Lowest, 29·6 ins. and less in a well-defined system lying over the south of Sweden, 29·8 ins. and less in a shallow disturbance off the west of Scotland. Another shallow depression forming later off the east and north-east of England.

Judd & Co. Lith. 73 & 75, Farringdon Rd. & Doctors' Commons.

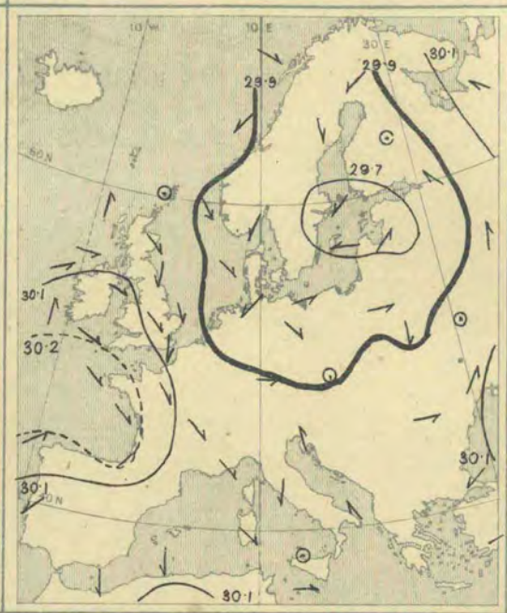
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 16th June.

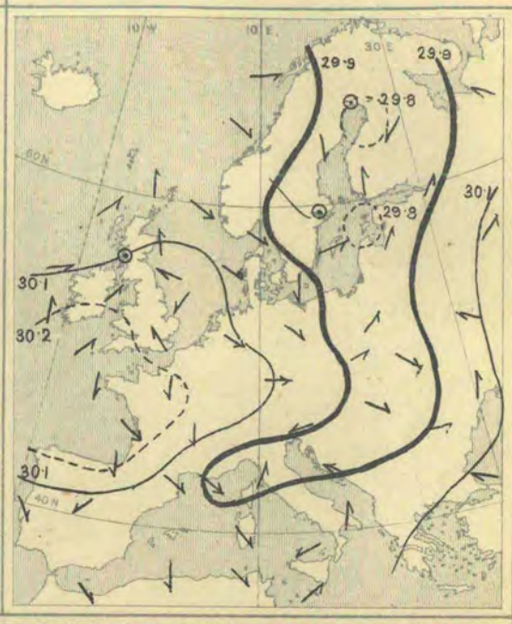
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright over Spain, France, and the south of our Islands, as well as in Scandinavia and the southern parts of Russia and Italy. Dull in most other localities, with rain in some parts of Finland, Poland, and Germany. Sky clearing later over England, but slight rain falling at our extreme northern and some of our western stations; heavy falls in Austria-Hungary and several parts of eastern Germany and Finland; a considerable fall at Wisby also.

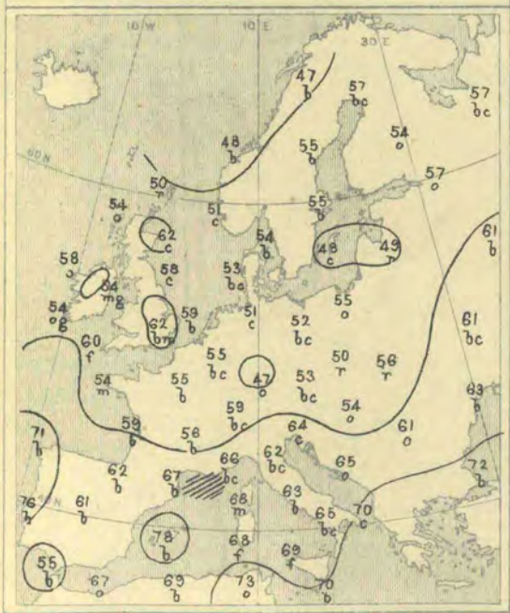
Temperature highest, 73° at La Calle and Tunis, 72° at Barcelona, 71° at San Fernando, and 70° at Perpignan; above 60° over southern Europe and the Mediterranean generally. Lowest, 44° at Bodö, 46° at Christiansund, 47° at Sumburgh Head, 48° at Stockholm, and 49° at Faerder and Nairn; below 55° in the north and east of our Islands generally. Rising during day to between 65° and 70° at many of the English and Irish stations, to 75° or more in southern and south-eastern Europe, to 80° and more at Malta and Lisbon, and still higher over Algeria. Not touching 60° in many parts of Germany.

Wind light from the Northward or North-Westward over the greater part of western Europe, but South-Westerly or Southerly in the extreme west and north-west of our Islands. Westerly or South-Westerly over Germany and Austria; Southerly or South-Easterly in Russia, and also in Italy; Northerly in Algeria, variable in Spain. Subsequently backing to the South-Westward in most parts of the United Kingdom.

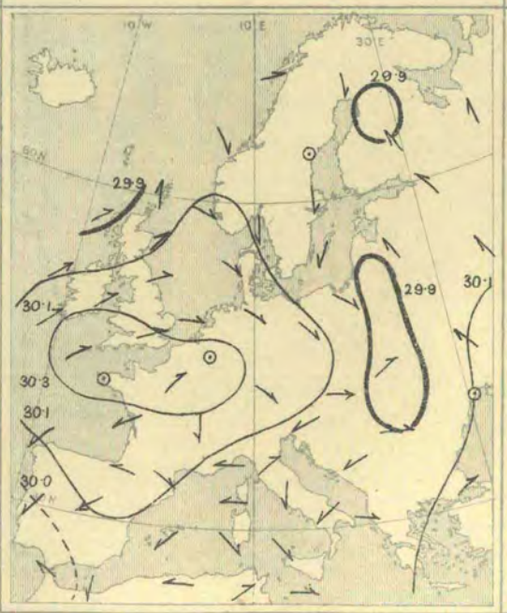
Barometer highest, 30·2 ins. and upwards in an anticyclone lying over the Bay of Biscay and its immediate neighbourhood, 30·1 ins. and upwards in another system over Russia. Lowest, 29·7 ins. and less in a shallow depression lying over the northern parts of the Baltic; another shallow disturbance apparently travelling along in a north-easterly direction outside our extreme north-west coasts. Anticyclone over Bay of Biscay subsequently spreading north-eastwards, and barometer rising in nearly all parts of western Europe.

Wednesday, 17th June.

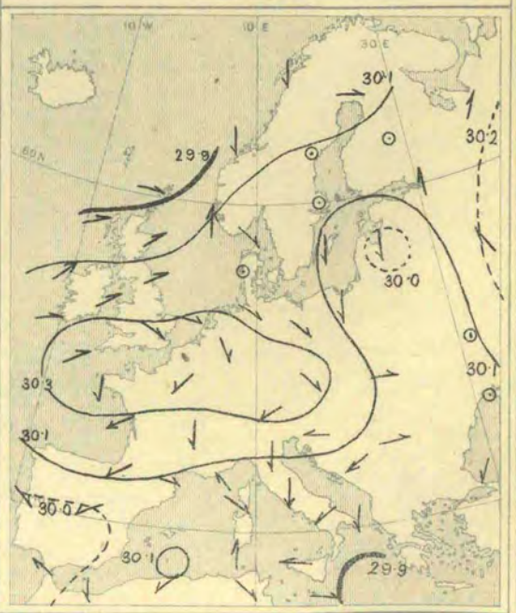
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over nearly the whole of north-western and western Europe, as well as over the Mediterranean; dull in the west and north of our Islands, with fog in many places and rain in others; dull over central Europe also, with rain at Lemberg and Cracow. Rain later in the north of Scotland and some parts of Norway and a small quantity at Munich. Thunderstorm occurring at Trieste.

Temperature rising over the British Islands and Norway, falling over central Europe. Morning readings exceeding 70° at Constantinople, at some of the Mediterranean stations, and on the Portuguese coast; exceeding 60° over southern and south-eastern Europe generally and in several parts of the British Islands, lower elsewhere. Below 50° in the north of Norway and the Baltic Provinces, and as low as 47° at Munich, 49° at Münster and Breslau, 50° at Warsaw and Cracow, and also at Sumburgh Head. Rising to between 70° and 76° over Great Britain and some parts of Ireland later, to nearly 80° in the south of France, to 90° at Lisbon and Laghouat, and to 95° at Biskra.

Wind light to moderate generally; South-Westerly over the British Islands, Northerly over Scandinavia, and also over the southern half of France; North-Westerly to Westerly over Germany and Austria, North-Easterly over Spain, and Easterly over the Bay of Biscay. Inclined to freshen slightly from South-West in the north-west of our Islands later, and from North-Eastward in the south-west of France. Moderate Northerly breeze setting in over Italy in evening.

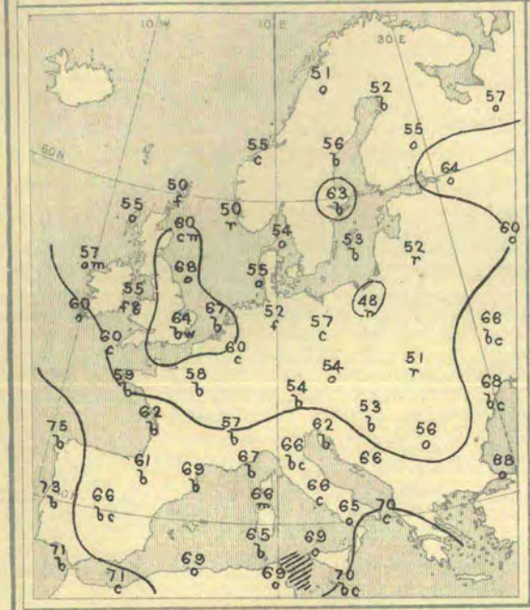
Barometer highest, 30·3 ins. and more to 30·1 ins. in an anticyclone covering the greater part of western Europe and the neighbouring parts of the Atlantic, and 30·2 ins. and more to 30·0 ins. over the southern half of Russia. Lowest, 29·9 ins. and less in an elongated depression over Galicia and western Russia, and in another over the north-west of Finland. Falling somewhat both in Spain and the extreme north of our Islands during day, but elongated depression over western Russia filling up steadily.

Judd & Cº Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

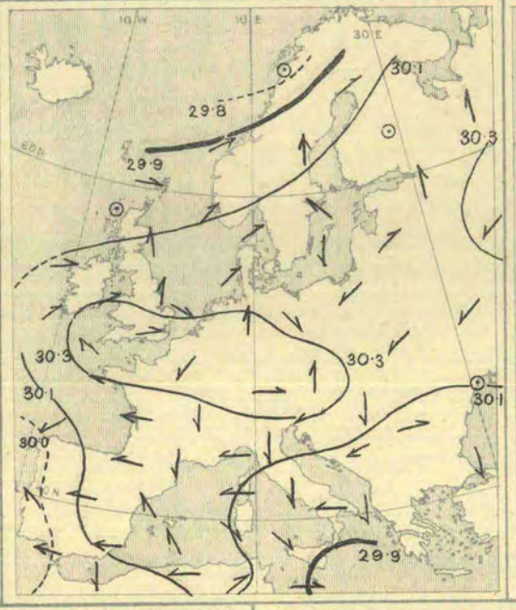
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 18th June.

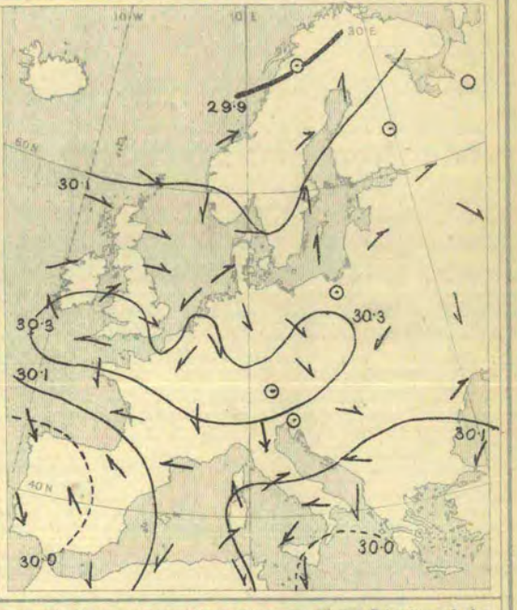
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the greater part of western and northern Europe, but dull in the extreme north and north-west of our Islands and rainy in the south of Norway. Dull also at several of the Russian, Danish, and German stations, with rain at Riga, Neufahrwasser, and Lemberg. Rain falling later in the north of Scotland, but no important change occurring elsewhere.

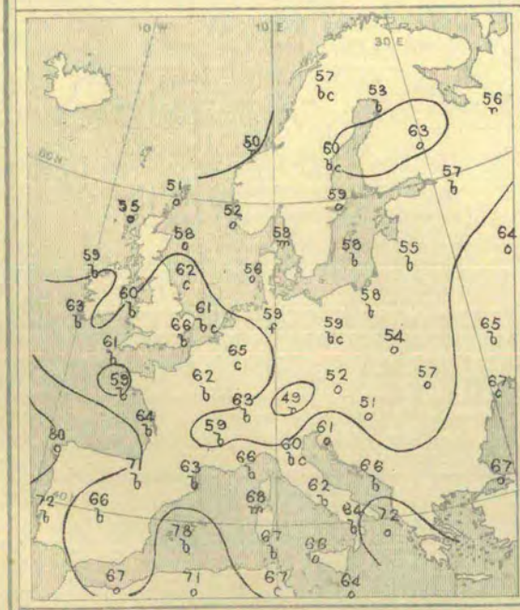
Temperature highest, 78° at Palma, 75° at Corunna, 74° at Barcelona, 73° at Lisbon, and 71° at San Fernando and Oran; above 65° in most parts of southern and eastern Europe, as well as at some of the inland English stations. Lowest, 47° at Memel, 48° at Neufahrwasser, and 50° at Skudesnaes, Sumburgh Head, and Warsaw; below 55° in most parts of Scandinavia, Denmark, and Germany. Rising during day to 70° or more at many of the English and Irish stations, and reaching 78° in London. Exceeding 80° in the west and south of France, as well as in some parts of Spain and southern Italy, and exceeding 90° over central Algeria.

Wind light or moderate from the South-Westward over the greater part of our Islands, and also in Scandinavia and Denmark, but variable at the Channel stations. Easterly or North-Easterly over France and southern Europe, but North-Westerly over the central parts of the Mediterranean. Light and variable over Russia, Germany, and Austria. Subsequently veering to the Westward over the northern parts of the United Kingdom; fresh North-Westerly breezes setting in over the western parts of the Spanish Peninsula.

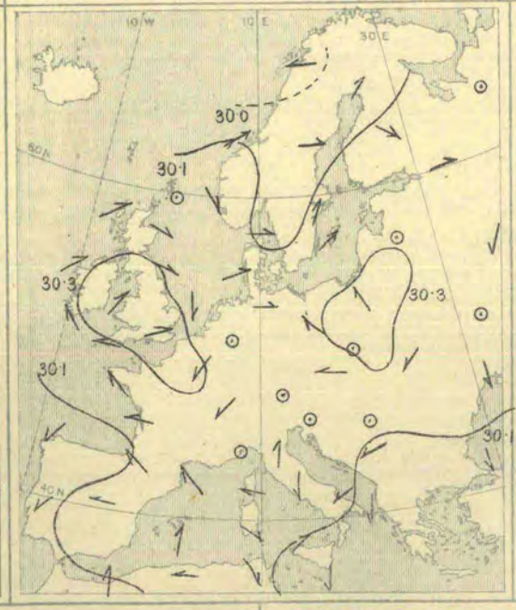
Barometer highest, 30·3 ins. and upwards in an anticyclone extending from Germany across the Netherlands, the north of France, and the south of our Islands, and also in another system lying over central Russia. Lowest 29·8 ins. and less in a depression lying off the north-west of Norway, 29·9 ins. and less in another system lying to the southward of Italy. Slight fall of barometer taking place over France and the south of our Islands during day, but no decided change occurring in general distribution of pressure.

Friday, 19th June.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

Weather fine over the greater part of Europe, but dull in Scotland, Denmark, and the west of Norway, as well as in Poland and Austria, with rain at Christiansund and Copenhagen, and also at Munich. Mists reported on the south and east coasts of England, and fog at Cuxhaven and the Helder. Sky clearing later in Scotland and the west of Norway; no important change occurring elsewhere, but thunderstorms reported in some parts of south Germany.

Temperature highest, 83° at Oporto, 82° at Bilbao, 80° at Corunna, 78° at Palma, and 72° at Brindisi and Lisbon; above 65° at nearly all the Mediterranean stations, as well as in the south of Russia and some parts of central Europe. Lowest, 49° at Munich, 50° at Christiansund, and 51° at Cracow and Buda-Pesth; below 55° in many parts of central Europe, as well as in Norway and the extreme north of our Islands. Rising during day to between 75° and 80° in many parts of the United Kingdom, to 85° or more in the west and south of France, to 91° at Lisbon, and to 93° at Rochefort. Remaining below 80° at most of the Italian stations.

Wind light from the Eastward over Spain, France, and the extreme south-west of England, from the Southward in Ireland and Wales, and from the Westward on the east coasts of Great Britain and the eastern shores of the North Sea. Moderate to strong from the Southward in Sweden and the Baltic Provinces, light and variable over central and eastern Europe, moderate from the Northward in Italy. Light Easterly or North-Easterly breezes setting in later over the eastern and south-eastern parts of Great Britain.

Barometer highest, 30·3 ins. and upwards over England, Ireland, and the north of France, and also over the Baltic Provinces; 30·3 ins. and upwards in a large anticyclone covering the major portion of Europe. Lowest, 30·0 ins. and upwards in a shallow depression lying off the north-west of Norway, and also in another system lying to the southward of Italy. Slight fall of barometer taking place later over Spain, France, and the south of our Islands, and anticyclone moving slowly northwards.

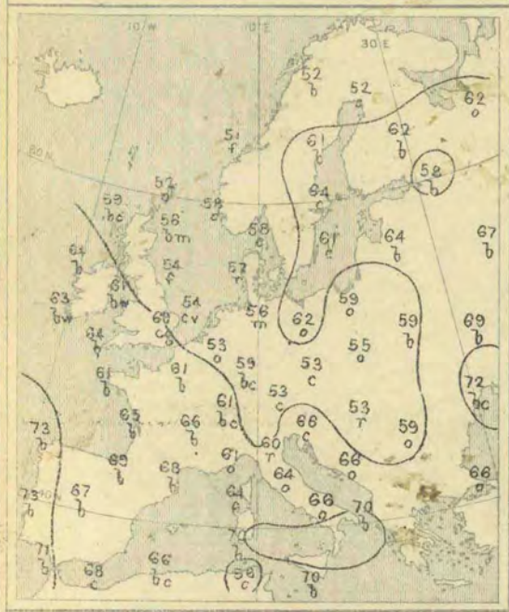
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 20th June.

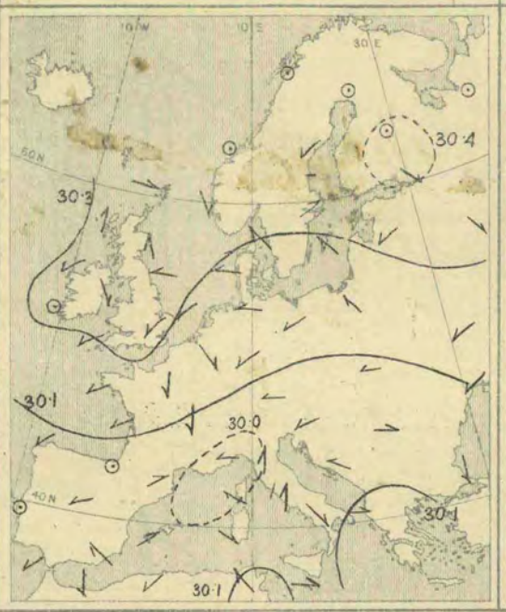
Temperature and Weather.

8 a.m.

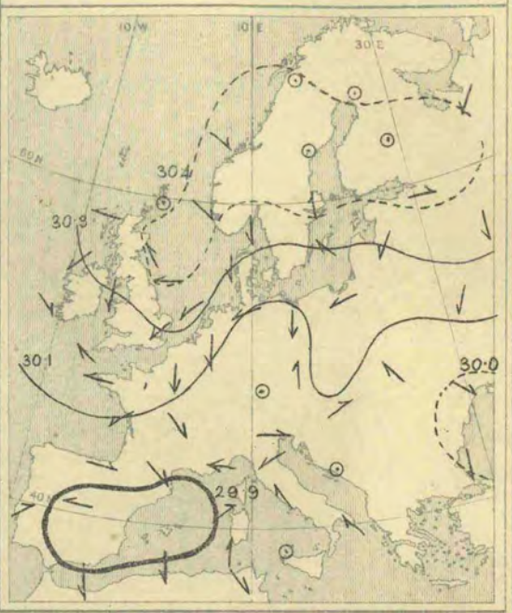


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine over the greater part of Europe, but dull and unsettled over Denmark, Germany, Austria, and Italy, with rain in many places. Fog reported on some parts of our own north and east coasts, and haze at several of the Channel stations. Heavy rain falling later in isolated parts of Italy and Austria, and thunderstorms occurring at Cette and Magdeburg.

Temperature highest, 83° at Oporto, 78° at Bilbao, 77° at Barcelona, 75° at Palma, and 73° at Coruna and Lisbon; above 65° at most of the Spanish, Mediterranean, and Adriatic stations, as well as over central Ireland and the central and southern parts of Russia. Lowest, 51° at Christiansund and Münster, and 53° at Bodö, Haparanda, Sumburgh Head, Spurn Head, and the Helder; below 55° in many parts of central Europe, and also on the east coast of England. Rising during day to 75° or more in various parts of the United Kingdom, to 80° or more at several of the French stations, and to 90° or more in some of the more central parts of Spain and Algeria.

Wind light or moderate from the Eastward or North-Eastward over Denmark, the Baltic, north Germany, the Netherlands, France, Spain, and the greater part of England. Calm over the northern parts of Scandinavia and Russia, light and variable in Ireland and Scotland, as well as in Italy and Austria; North-Easterly or Northerly in Algeria. Light Easterly breezes setting in later over Italy; no important change occurring elsewhere.

Barometer highest, 30·4 ins. and upwards in Finland, 30·3 ins. and upwards in a large anticyclone lying over the whole of northern and north-western Europe. Lowest, 30·0 ins. and less in a shallow elongated depression lying off the south of France. No important change occurring during day, but depression moving slowly in an east-south-easterly direction and becoming somewhat more clearly defined.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The weather experienced over Europe during the past week was generally fair and warm, excepting in the more central countries, where the conditions were for the most part dull and cool, with occasional heavy falls of rain.

At the beginning of the period a large anticyclone extended from the Atlantic over the Bay of Biscay, while shallow low-pressure systems were observed over various parts of northern Europe. The prevailing winds were, therefore, North-Westerly at the western and central stations, but North-Easterly in the south, and variable in the north. On the 15th some shallow secondary depressions appeared in the neighbourhood of our Islands and produced thunderstorms at many of the English and Irish stations; but these, together with the larger disturbances over northern Europe, soon travelled away to the eastward, and for the remainder of the week the conditions were influenced by the anticyclone noticed above. On the 17th and 18th the high-pressure system spread gradually eastwards across France, Germany, and the southern parts of our Islands, while on the two following days it drifted in a northerly and north-easterly direction to the northern parts of our Islands and the Continent. At the close of the week shallow depressions were beginning to appear over Spain and the south of France; and the light variable breezes which had prevailed during the passage of the anticyclone were being replaced by a decided current of air from the Eastward and North-Eastward.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 140.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	18·3	?	15	?	EASTBOURNE	62·6	?	55	?
OSWALDKIRK (Yorkshire)	26·9	?	23	?	TORQUAY	57·0 *	?	50 *	?
WORKSOP	34·1	− 2·0	29	− 2	ARLEY COTTAGE (County Cavan)	39·0	?	33	?
THURCASTON (Leicestershire)	51·0	+14·1	44	+12					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

WEEKLY WEATHER REPORT.

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VOL. VIII. No. 25.] *Third Series.* WEEK ENDING SATURDAY, 27TH JUNE, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 146.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	81	44	68·5	50·9	59·1	6 above.	120	+53	0	− 1	665	+ 92	621	+ 79
	1. SCOTLAND, EAST	81	42	65·2	50·6	57·4	2 above.	108	+20	0	0	723	− 65	670	+101
	2. ENGLAND, N.E.	76	45	64·3	51·8	57·6	1 above.	109	+14	0	0	683	− 94	593	+ 95
	3. ENGLAND, EAST	81	49	69·9	54·5	61·6	3 above.	137	+28	0	0	883	− 68	689	+128
	4. MIDLAND COUNTIES	80	41	70·1	53·6	61·3	3 above.	135	+28	0	0	943	− 39	668	+116
	5. ENGLAND, SOUTH	77	45	69·2	55·5	61·8	2 above.	139	+24	0	0	996*	− 66	565	+149
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	80	43	73·2	54·7	63·3	7 above.	149	+58	0	0	878	+ 70	463	+ 46
	7. ENGLAND, N.W.	78	41	70·9	54·7	62·2	5 above.	141	+41	0	0	871	+ 14	451	+ 37
	8. ENGLAND, S.W.	77	45	67·1	54·8	60·5	3 above.	130	+23	0	0	986	− 24	434	+118
	9. IRELAND, NORTH	83	46	71·1	55·6	62·8	6 above.	146	+51	0	0	932	+ 10	390	+ 28
	10. IRELAND, SOUTH	79	44	70·5	55·1	62·3	5 above.	142	+37	0	0	1102	+ 29	309	+ 31
	— CHANNEL ISLANDS	73	53	65·7	56·2	60·6	2 above.	130	+19	0	0	1113	− 13	162	+ 40

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 146.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	2	6	1 less.	105	− 9	20·2	− 0·9	59	+25	47	+21	723	+ 94	32	+ 3
	1. SCOTLAND, EAST	2	3	2 less.	69	−22	8·6	− 4·9	51	+12	42	+ 9	723	+ 18	32	0
	2. ENGLAND, N.E.	2	1	4 less.	75	−10	7·7	− 3·1	39	0	33	0	669	+ 41	30	+ 1
	3. ENGLAND, EAST	3	7	2 more.	81	− 3	8·9*	− 1·9	44	− 2	38	0	712	− 38	32	− 3
	4. MIDLAND COUNTIES	4	11	5 more.	76*	− 6	10·6	− 1·8	32	−10	27	− 8	688*	+ 24	31	0
	5. ENGLAND, SOUTH	5	10	5 more.	72	− 9	10·3	− 1·7	44	+ 3	38	+ 2	785*	+ 75	36	+ 3
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	3	7	0 (average)	78	−19	13·6	− 8·0	60	+17	50	+13	753	+ 62	34	+ 2
	7. ENGLAND, N.W.	4	11	6 more.	70	−19	9·3	− 4·0	45	+ 2	38	+ 2	639	+ 10	31	0
	8. ENGLAND, S.W.	4	9	2 more.	73	−19	12·8	− 4·2	45	− 4	40	− 4	838	+ 41	38	+ 1
	9. IRELAND, NORTH	4	6	1 less.	89	−14	10·5	− 4·3	59	+21	50	+19	733	+ 62	33	+ 2
	10. IRELAND, SOUTH	4	9	3 more.	81	−16	12·5	− 5·1	56	+13	48	+13	798	+ 38	36	+ 1
	— CHANNEL ISLANDS	3	2	3 less.	79	−20	11·5	− 2·5	54	+ 1	48	0	1036	+116	47	+ 5

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather remained fine and dry over the northern and north-western parts of the Kingdom until nearly the end of the week, but in all other localities the conditions became changeable and unsettled soon after the period commenced. Thunderstorms were experienced from time to time in the more southern districts and on the 26th and 27th in Scotland.

Temperature has continued above the mean, the excess having varied between 1° and 3° in most parts of the country; in "England N.W." and "Ireland S.," however, it has been 5°, in "Scotland N." and "Ireland N." 6°, and in "Scotland W." as much as 7°. The highest of the maxima, which were recorded on rather irregular dates, ranged from 83° in "Ireland N.," and 80° or 81° in Scotland and over central and eastern England, to 73° in the "Channel Islands." The lowest of the minima were generally registered either on the 21st or 22nd, and varied from 41° in the "Midland Counties" and "England N.W." to 49° in "England E." and 53° in the "Channel Islands."

Rainfall has been less than the mean in the east of England, the north and east of Scotland, in "Ireland N.," and the "Channel Islands," and has equalled the normal in "Scotland W.;" in all other districts a rather decided excess is shown. The rainfall during the 25th was extremely heavy in some parts of central England.

Bright Sunshine has exceeded the mean in Ireland and Scotland, but has not materially differed from it over England. The percentage of the possible duration has ranged from 50 in "Ireland N." and "Scotland W.," and 48 in "Ireland S." and the "Channel Islands," to 33 in "England N.E." and 27 in the "Midland Counties."

Barometer and Wind.—At the commencement of the period the distribution of pressure over our Islands was anticyclonic, but a shallow area of low pressure soon began to move over us from the Southward, and later in the week depressions approached our western coasts from the Atlantic. Light to moderate North-Easterly or Easterly winds were most prevalent during the greater part of the week, but towards its close they became South-Westerly to South-Easterly, and increased somewhat in force.

* This value has been altered slightly owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 145 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	70	44	62·1	48·6	54·9	+ 4·3	90	0	0	0·01	−0·47	*	*	*	*
	Stornoway	71	45	64·3	49·7	56·5	+ 3·6	102	0	2	0·73	+0·06	65·5	+24·9	52	+21
	Wick	72	46	62·7	48·4	55·1	+ 2·0	92	0	2	0·60	+0·18	*	*	*	*
	Lairg Ⓢ	79	45	73·3	49·1	60·4	+ 6·7	129	0	2	0·72	+0·14	*	*	*	*
	Glencarron Ⓢ	81	50	75·4	52·6	63·2	+10·0	148	0	2	0·39	−0·26	*	*	*	*
	Fort Augustus Ⓢ	72	50	66·5	52·5	59·0	+ 4·0	119	0	2	0·62	+0·03	45·6	?	37	?
	Fort William Ⓢ	79	53	75·2	55·3	64·6	+ 8·9	158	0	1	0·75	−0·25	65·4	?	53	?
1. SCOTLAND, E.	Nairn	78	45	65·7	50·0	57·3	+ 1·4	107	0	2	0·48	+0·03	*	*	*	*
	Aberdeen	68	44	63·0	50·4	56·3	+ 1·1	100	0	3	0·22	−0·23	55·5	+11·9	45	+ 9
	Braemar Ⓢ	74	42	71·1	51·1	60·4	+ 7·5	129	0	2	0·04	−0·55	55·7 †	? †	45†	?†
	Ochtertyre Ⓢ	81	42	63·6	51·7	57·2	+ 1·6	106	0	1	0·68	0·00	*	*	*	*
	Leith	67	46	62·9	50·7	56·4	− 0·2	101	0	2	0·42	−0·07	*	*	*	*
	Marchmont Ⓢ	68	43	64·8	49·4	56·6	+ 1·9	102	0	2	0·10	−0·54	55·0	?	45	?
2. ENGLAND, N.E.	Alnwick Castle	68	46	62·6	52·9	57·4	+ 2·6	108	0	1	0·04	−0·46	*	*	*	*
	Durham	73	45	67·3	51·4	58·8	+ 2·0	118	0	3	0·04	−0·45	37·5	+ 1·2	31	0
	Shields	67	45	60·1	49·3	54·3	− 1·4	86	0	0	—	−0·43	*	*	*	*
	Scarborough ℳ	71	49	62·4	52·9	57·3	+ 0·7	107	0	2	0·19	−0·29	*	*	*	*
	York	76	46	71·9	51·3	60·9	+ 2·8	132	0	3	0·11	−0·41	40·3	+ 2·1	34	+ 3
	Spurn Head	68	49	61·6	52·9	57·0	− 0·3	105	0	1	0·27	−0·10	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	79	49	71·1	54·6	62·3	+ 3·7	142	0	2	0·25	−0·30	52·0	+ 8·6	44	+ 7
	Yarmouth	74	49	64·7	54·3	59·1	+ 1·0	120	0	4	0·43	−0·06	*	*	*	*
	Geldeston	78	50	69·1	54·9	61·5	+ 3·7	137	0	3	0·67	+0·27	45·4	− 2·6	40	− 2
	Cambridge	81	50	73·7	54·4	63·4	+ 4·0	150	0	4	0·75	+0·22	41·1	− 2·4	36	− 2
	Rothamsted	75	49	70·8	54·2	61·9	+ 3·5	139	0	4	1·13	+0·61	36·3	?	32	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	77	49	72·0	52·6	61·6	+ 3·2	137	0	4	0·49	−0·06	*	*	*	*
	Loughborough	80	51	72·9	54·7	63·2	+ 3·6	148	0	3	2·48	+1·97	*	*	*	*
	Stamford (Ketton Hall)	80	49	73·3	54·3	63·1	+ 3·7	148	0	3	0·57	?	*	*	*	*
	Cheadle ℳ	74	44	68·1	53·0	60·0	+ 3·6	126	0	4	1·32	+0·64	*	*	*	*
	Churchstoke ℳ	72	41	67·7	52·0	59·3	+ 2·9	121	0	5	1·14	+0·63	35·9	− 5·0	31	− 4
	Hereford ℳ	73	46	69·2	54·4	61·3	+ 2·1	135	0	5	0·86	+0·36	*	*	*	*
	Cirencester	70	45	67·9	53·1	60·0	+ 2·6	126	0	6	0·82	+0·26	32·5	−10·4	28	− 9
	Oxford	74	50	69·6	55·0	61·8	+ 2·7	139	0	6	0·77	+0·24	25·7	−14·3	25	−12
5. ENGLAND, S.	London	77	51	72·4	55·7	63·5	+ 2·8	151	0	3	0·73	+0·22	36·3 †	− 3·0†	32†	− 3†
	Strathfield Turgiss ℳ	75	47	71·9	54·0	62·3	+ 2·9	142	0	6	0·64	+0·16	*	*	*	*
	Dungeness	71	53	66·1	55·7	60·5	+ 1·2	130	0	5	1·04	+0·66	*	*	*	*
	Hastings (St. Leonards)	72	52	66·7	55·8	60·9	+ 1·2	132	0	4	1·16	+0·76	49·7	+ 0·4	44	0
	Southampton	77	51	70·9	56·0	62·9	+ 2·7	146	0	6	1·33	+0·86	49·5	+ 2·5	42	0
	Hurst Castle	72	53	67·7	56·7	61·8	+ 2·6	139	0	5	1·18	+0·70	*	*	*	*
	Stowell ℳ	72	45	68·5	54·3	60·9	+ 2·3	132	0	5	0·55	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	80	54	76·0	58·3	66·5	+10·9	172	0	2	0·24	−0·96	*	*	*	*
	Glasgow	75	48	71·0	52·7	61·2	+ 4·7	134	0	2	0·71	+0·04	61·5	+25·0	51	+20
	Ardrossan	79	48	74·7	53·4	63·3	+ 6·6	149	0	2	0·32	−0·28	*	*	*	*
	Glenlee Ⓢ	78	43	74·4	55·3	64·2	+ 8·6	155	0	3	0·37	−0·43	*	*	*	*
	Douglas (Isle of Man)	74	50	69·9	54·0	61·4	+ 5·5	136	0	4	2·06	+1·51	57·5	+ 8·3	49	+ 7
7. ENGLAND, N.W.	Newton Reigny	78	41	73.9	49·7	61·0	+ 5·3	133	0	3	0.77	+0·22	65·7	+22·5	55	+19
	Stonyhurst	76	44	72·6	53·7	62·5	+ 5·1	144	0	4	0·38	−0·47	46·6	+ 4·6	39	+ 3
	Blackpool ℳ	77	51	74·0	57·6	65·2	+ 7·7	162	0	2	0·38	−0·15	25·7	−16·8	22	−13
	Manchester	75	50	71·0	54·9	62·4	+ 5·1	143	0	4	0·72	−0·01	*	*	*	*
	Liverpool Obsy. (Bidston)	76	52	71·1	56·0	63·0	+ 4·5	147	0	5	2·37	+1·87	*	*	*	*
	Llandudno ℳ	72	53	67·2	55·4	60·9	+ 2·6	132	0	4	2·09	+1.65	42·4	+ 2·4	36	+ 1
	Holyhead	71	54	66·4	55·3	60·5	+ 2·9	130	0	5	1·18	+0·71	*	*	*	*
8. ENGLAND, S.W.	Llandovery	77	45	71·7	54·0	62·2	+ 3·8	141	0	4	1·60	+0·88	*	*	*	*
	Pembroke	72	54	65·4	55·1	59·9	+ 2·5	125	0	5	1·13	+0·66	49·2	− 3·8	43	− 4
	Arlington (N. Devon)	71	50	68·0	54·1	60·6	+ 3·8	130	0	4	0·60	−0·26	*	*	*	*
	Cullompton ℳ	73	48	68·4	55·0	61·2	+ 2·7	134	0	4	0·39	−0·20	48·4	+ 4·4	42	+ 3
	Falmouth	72	53	66·0	56·3	60·8	+ 2·6	132	0	5	0·77	+0·16	37·9	−14·3	34	−12
	Plymouth															
	Prawle Point	72	53	63·0	54·4	58·4	+ 1·6	115	0	4	0·30	+0·21	*	*	*	*
9. IRELAND, N.	Malin Head	75	53	66·4	54·3	59·9	+ 4·0	125	0	3	0·11	?	*	*	*	*
	Londonderry	83	52	77·5	56·1	65·9	+ 8·4	167	0	3	0·66	+0·04	*	*	*	*
	Mullaghmore	78	54	69·6	57·1	62·9	+ 5·7	146	0	4	0·56	−0·14	*	*	*	*
	Belmullet	76	56	70·6	58·3	64·0	+ 7·9	154	0	4	0·23	?	*	*	*	*
	Markree Castle	79	46	72·2	53·5	62·2	+ 6·7	141	0	4	0·49	−0·29	60·5	+26·2	51	+22
	Brookeborough	79	54	72·2	56·5	63·8	+ 7·3	153	0	4	1·06	+0·38	*	*	*	*
	Armagh	76	47	71·4	53·7	61·9	+ 5·5	139	0	4	0·75	+0·22	58·0	+20·0	49	+17
	Donaghadee	72	55	67·3	56·3	61·4	+ 5·5	136	0	3	0·64	+0·16	*	*	*	*
	Edgeworthstown	76	53	72·3	54·6	62·8	+ 6·3	146	0	4	0·44	−0·27	*	*	*	*
10. IRELAND, S.	Dublin	74	53	67·8	56·3	61·7	+ 3·2	138	0	4	1·09	+0·65	53·6	+12·8	46	+12
	Parsonstown	79	48	72·6	55·3	63·4	+ 6·2	150	0	4	1·01	+0·41	49·5	+10·9	42	+ 9
	Kilkenny	76	50	71·3	54·3	62·2	+ 4·7	141	0	4	1·21	+0·69	*	*	*	*
	Waterford	77	50	70·1	54·3	61·7	+ 3·5	138	0	5	0·84	+0·16	*	*	*	*
	Roche's Point	79	51	68·0	56·4	61·8	+ 3·2	139	0	4	1·26	+0·54	*	*	*	*
	Valencia	78	49	70·1	55·7	62·6	+ 5·1	144	0	4	1·02	+0·24	63·9	+20·7	56	+19
	Killarney	77	44	71·8	52·3	61·4	+ 4·4	136	0	4	0·50	?	*	*	*	*
	Foynes	77	51	71·9	55·9	63·3	+ 6·0	149	0	4	0·59	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	64	54	62·4	56·1	59·0	+ 0·9	119	0	4	0·25	−0·20	*	*	*	*
	Jersey	73	53	69·0	56·3	62·2	+ 2·5	141	0	2	0·17	−0·29	54·0	+ 0·8	43	0

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

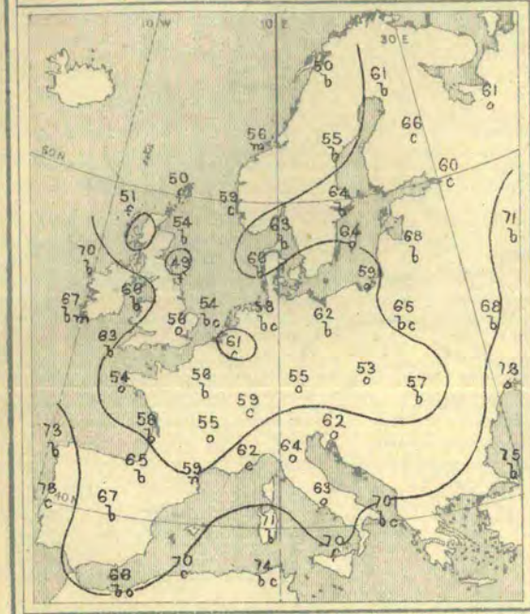
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 21st June.

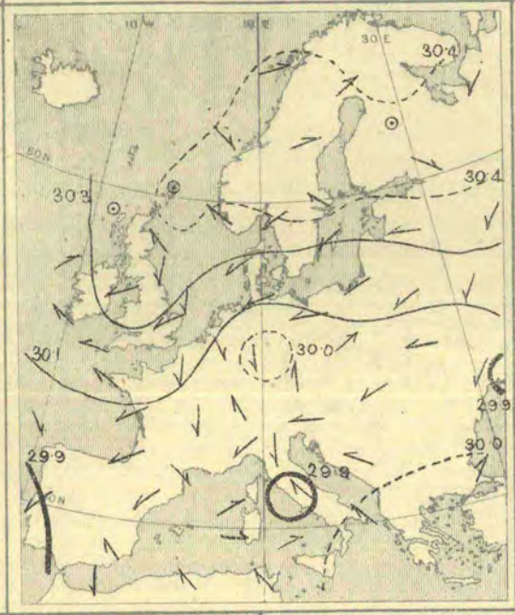
Temperature and Weather.

8 a.m.

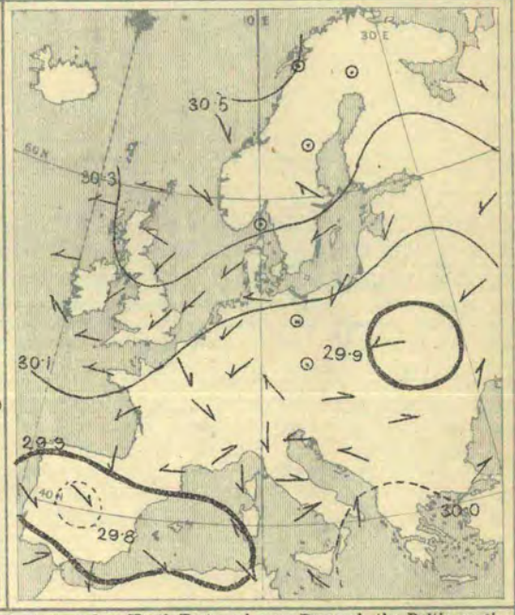


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine over the greater part of Europe, but cloudy and misty at several of the English stations. Dull in some parts of Germany, Austria, and Italy, with rain at Breslau. Sky clearing later over England, but rain falling at a few of the French and German stations. Thunderstorms occurring at Bamberg and Magdeburg.

Temperature highest, 78° at Lisbon, 75° at Constantinople, 74° at La Calle and Nicolaieff, and 73° at Corunna, Kharkov, and Odessa; about 65° over Spain, the central and southern parts of the Mediterranean and a considerable portion of Russia, as well as in Ireland and north Wales, and as high as 70° at Belmullet. Lowest, 49° at Shields, 50° at Bodö, 51° at Stornoway, and 52° at Leith, Spurn Head, and Loughborough; below 55° in many of the northern, eastern, and central parts of Great Britain, and also in many parts of central Europe. Rising during day to 75° or more in Ireland and the south-west of Scotland, reaching 80° at some of the French stations, and exceeding 90° in various parts of Spain and Algeria.

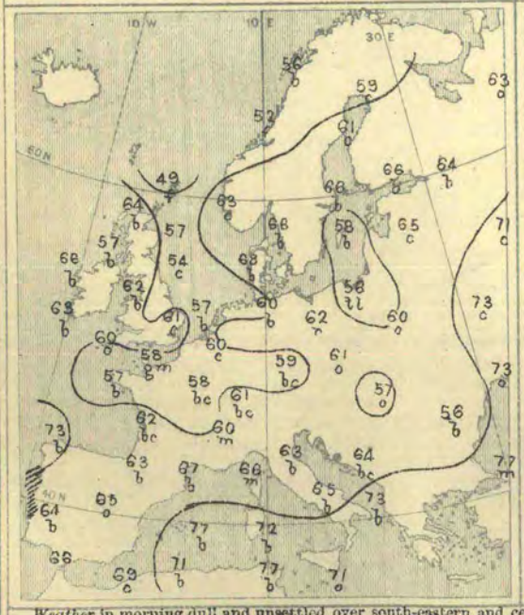
Wind light or moderate from the Eastward or North-Eastward over Denmark, the Baltic, north Germany, the Netherlands, France, Spain, and England; light from the South-Eastward in Ireland. South-Westerly or Westerly in the north of Scandinavia, variable over central Europe, Russia, and Italy; South-Easterly in Algeria. No important change occurring during day.

Barometer highest, 30·4 ins. and upwards in a large anticyclone lying over Scandinavia and northern Russia. Lowest, 29·9 ins. in a depression lying over the south-west of Spain, and also in a small disturbance near Rome; 30·0 ins. and less in two small systems lying respectively over Silesia and over Baden and Bavaria. Slight fall of barometer taking place during day in many parts of western Europe, but mercury rising over the central countries and German depressions filling up.

Monday, 22nd June.

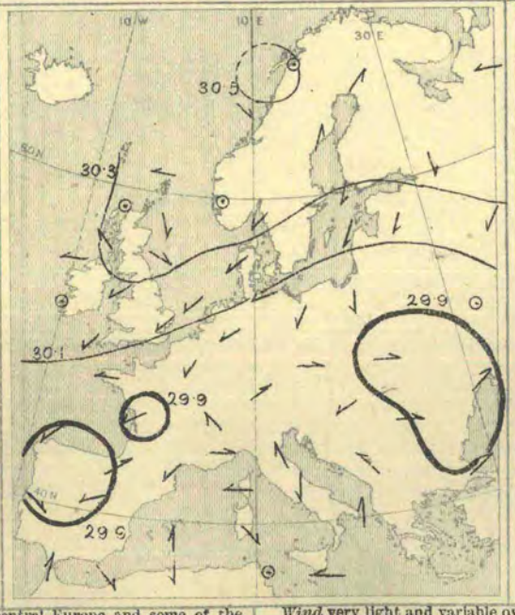
Temperature and Weather.

8 a.m.

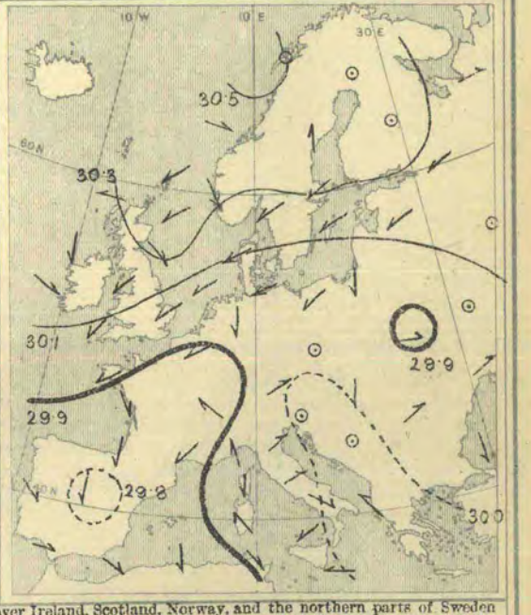


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning dull and unsettled over south-eastern and central Europe and some of the northern parts of France; dull in the inland parts of England; rain falling over Belgium and north Germany, thunder and lightning reported at Neufahrwasser. Fine and bright elsewhere, but with a rather unsettled appearance in London. Thunderstorms occurring later in many parts of France and Germany, and rain falling in the south and south-east of England—heavily in places. Thunder also heard at Laghouat.

Temperature risen over east and south Germany and in several parts of England, as well as in the south of France. Morning readings exceeding 70° over southern Russia, at Constantinople, and on the southern shores of the Mediterranean, and ranging between 67° and 63° in the south of France; exceeding 60° in the south and west of our Islands, on the eastern shores of the North Sea, and in the north of Russia. Lowest, 49° at Sumburgh Head, 51° at Leith, 52° at Christiansund, 54° at Shields, and 55° at Wick. Rising during day to between 70° and 77° in many parts of Ireland, England, and France, to between 66° and 72° over Germany, and to 80° or more in many parts of southern Europe. Becoming very close in London.

Wind very light and variable over Ireland, Scotland, Norway, and the northern parts of Sweden and Russia; moderate North-Easterly over the Baltic, the eastern and southern shores of the North Sea, as well as over England, the Channel, the north of France, and Bay of Biscay; light and variable over south-western, southern, south-eastern, and central Europe. Freshening from North-East in east and south of England later, and also on eastern shores of North Sea.

Barometer highest, 30·5 ins. and more to 30·3 ins. in an anticyclone covering northern Europe. Scotland, and the northern parts of the German Ocean. Below 30·0 ins. over the whole of southern, south-eastern, and central Europe, the Mediterranean, and Algeria; and lowest, 29·8 ins. and less in a depression near Nicolaieff, and 29·9 ins. and less in others lying over the south-west of France, the western half of the Spanish Peninsula, and Morocco. Falling in our Islands later, most in south and south-east. Continental low-pressure system spreading northwards.

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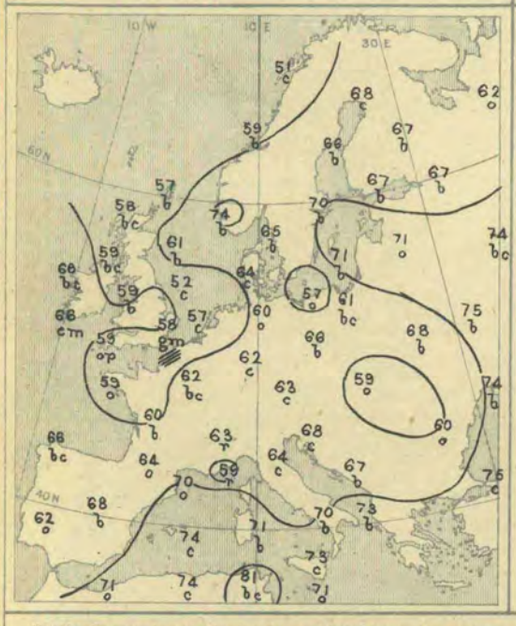
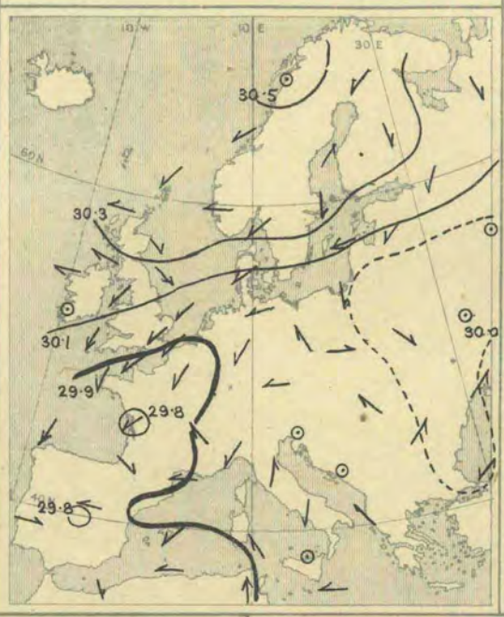
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 23rd June.

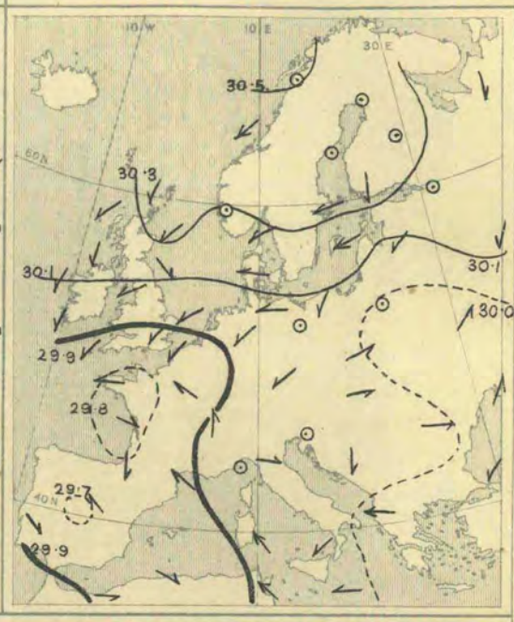
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning continuing fine and bright over the western and northern parts of the United Kingdom, Norway, and northern Europe generally; fine also over Russia, central and south-eastern Europe, and in Italy; cloudy and unsettled elsewhere, with rain at several of our southern stations, as well as at Brussels, Lyons, and Toulon. Rain later all over England, and a little at Aberdeen; thunderstorms on our south-eastern and southern coasts, as well as in many parts of France and Germany; fog in far north.

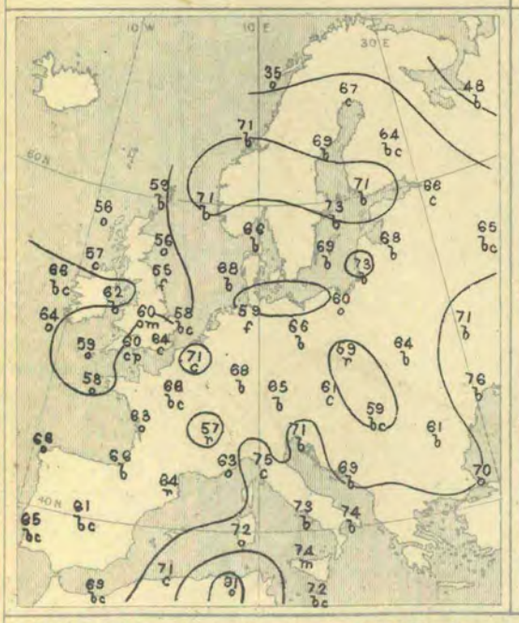
Temperature changing irregularly; morning readings exceeding 70° over central and southern Russia and on the southern side of the Mediterranean (81° at La Calle), and exceeding 60° over the greater part of central and northern Europe and many parts of the British Isles; lower elsewhere. Lowest, 51° at Bodö, 52° at Wick, Nairn, and Shields, 56° at Dungeness, 57° at Swinemünde, and 58° in London. Failing to reach 65° at several of the English stations later, but exceeding 70° at several of our western stations, and all but touching 80° in the west of France. Rising to 86° at Madrid, and exceeding 90° in many parts of Algeria.

Wind very light and variable over Sweden, Norway, and Scotland, mainly North-Easterly over the Baltic, North Sea, the Channel, England, and Ireland; very variable and light over the Continent generally; Easterly in the south of France. Little change later.

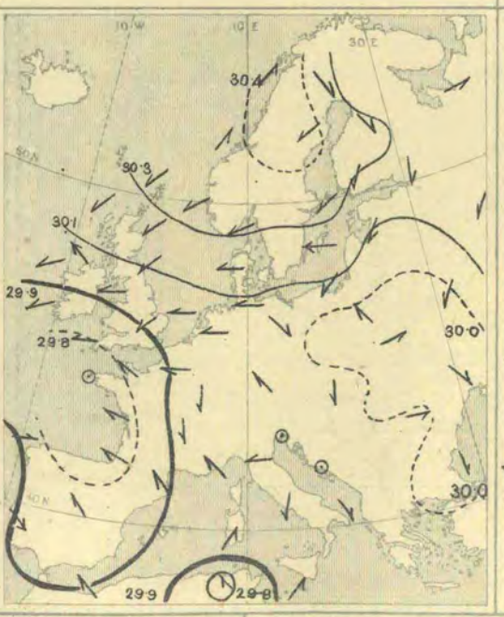
Barometer highest, 30·5 ins. and more to 30·3 ins. over Scandinavia, Finland, and Scotland, and 30·0 ins. and more over Italy, Austria, and southern and central Germany. Lowest, 29·8 ins. and less over the south-west of France and central Spain, and rather below 30·0 ins. over western Russia. Falling later in most parts of western Europe; low-pressure systems over France and Spain increasing in size and spreading northwards.

Wednesday, 24th June.

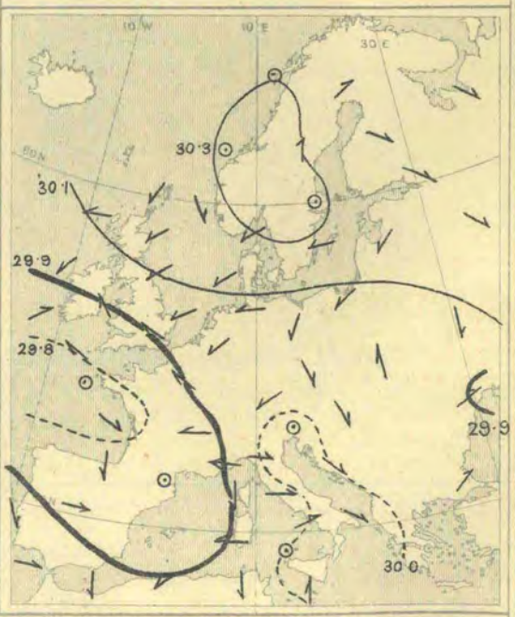
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather cloudy over the greater part of the United Kingdom, and also in the west of France, with passing showers in the south of England, fog at some of the coast stations, and steady rain in the south of France. Fine in nearly all other parts of Europe, but rainy at Cracow and Kharkov. Thunderstorms occurring during day at most of the English stations, and also in some parts of France and Germany, the accompanying showers being in many cases very heavy.

Temperature highest, 91° at La Calle, 82° at Tunis, 76° at Odessa, and 75° at Florence; above 70° in many parts of southern and south-eastern Europe, as well as at some of the Scandinavian stations. Lowest, 48° at Archangel, 54° at Prawle Point, and 55° at Bodö, Nairn, Leith, and Shields; below 60° in many parts of the United Kingdom, and also at some of the French and Austrian stations. Rising during day to between 75° and 80° over central England, and to 85° or more in some parts of Italy and Algeria. Minima during succeeding night as high as 60° in London and at Hurst Castle and Oxford, and 59° at Jersey.

Wind light to moderate from the Eastward or North-Eastward over the United Kingdom, the North Sea, Denmark, the Netherlands, north Germany, and the south of Scandinavia, South-Westerly in the west of Norway, chiefly Northerly in Russia, and also in Italy, but variable in Poland and Austria. Light from the South-Eastward over France, western Germany, Algeria, and central Spain. Subsequently shifting to the North-Westward in the west of France, no important change occurring elsewhere.

Barometer highest, 30·3 ins. to 30·4 ins. and upwards in a large anticyclone lying over Scandinavia and the northern parts of the North Sea. Lowest, 29·8 ins. and less in a large shallow depression over the Bay of Biscay and west of France, and also in a smaller system over eastern Algeria; 30·0 ins. and less in a large shallow area lying over eastern Europe. No important change occurring during day, but barometer falling in Scandinavia and rising a little over France and Spain.

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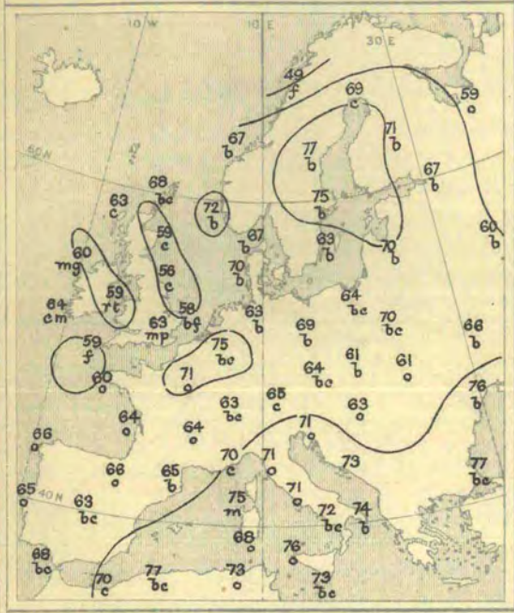
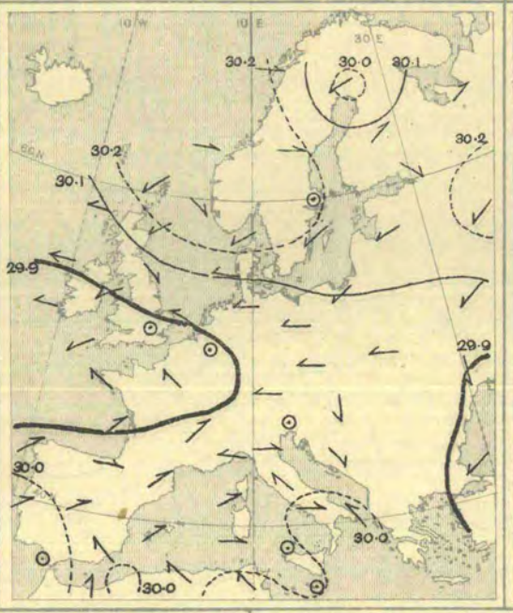
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 25th June.

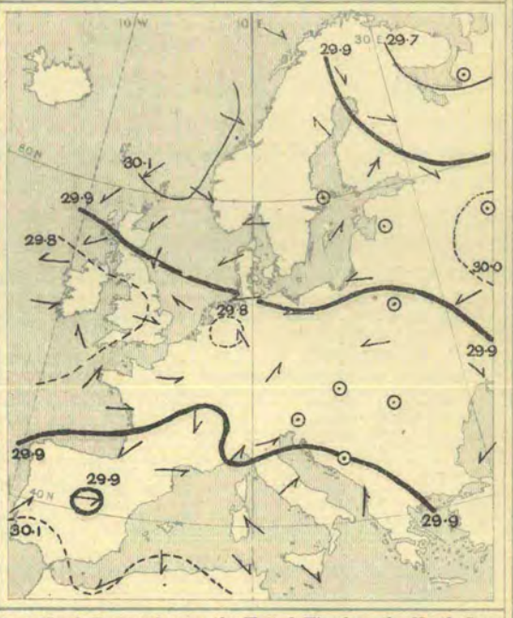
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather changeable and showery over the greater part of England and Ireland, with thunderstorms at Holyhead and Cambridge; dull in France, north Italy, and the western parts of the Spanish Peninsula. Fine in nearly all other parts of Europe. Thunderstorms occurring during day over nearly the whole of England, as well as in several parts of France and Germany; accompanying rainfall very heavy in places, and amounting to 1·6 ins. at Wiesbaden, 2·0 ins. at Liverpool, and 2·2 ins. at Loughborough.

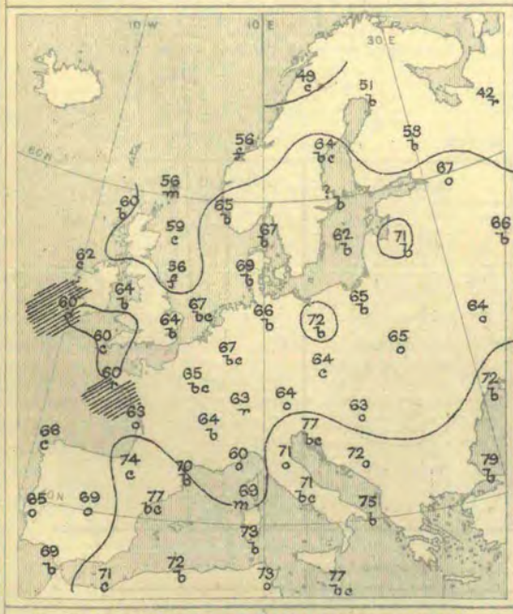
Temperature still very high in Scandinavia (72° at Skudesnaes, 75° at Skockholm, and 77° at Hernösand); above 70° also over the Mediterranean and southern and south-eastern Europe, the highest readings of all being 77° at Constantinople and Algiers, and 76° at Palma, Palermo, and Odessa. Lowest, 49° at Bodö, but relatively low (60° or less) in the north-eastern parts of Great Britain and Ireland. Rising during day to 70° or more at several of our own stations, and reaching 81° at Cambridge. Exceeding 80° in many parts of Germany, France, and southern Europe, and exceeding 85° in Algeria and the south of Italy.

Wind light from the Eastward or North-Eastward over the United Kingdom, the North Sea, Denmark, the Baltic, and the greater part of Russia and central Europe. Light from South-East in the north of France, and from South-West or West in the south of that country, and also over Spain; variable in Italy; South-Easterly in Algeria. Subsequently veering to the South-Eastward or Southward in the south and south-west of our Islands.

Barometer highest, 30·2 ins. and upwards in a large anticyclone lying over Scandinavia and the northern parts of the North Sea, as well as in another system lying over central Russia. Lowest, 29·9 ins. and less in a large shallow depression covering the greater part of England, Ireland, and France, and also in another area lying over the Black Sea. Decided fall of the barometer taking place during day in Scandinavia and the west and north of our Islands; anticyclone in north giving way steadily.

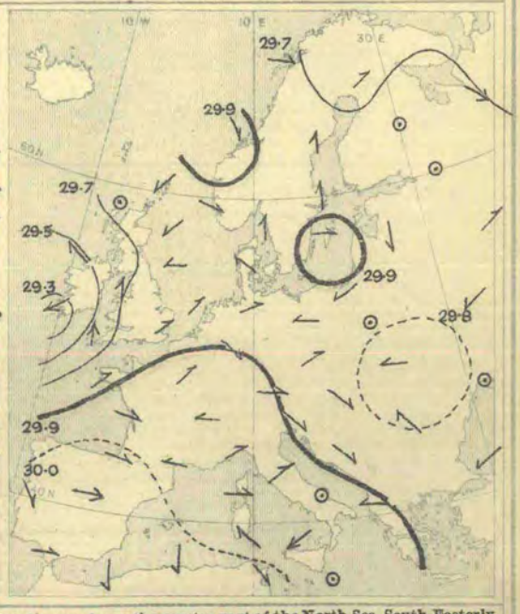
Friday, 26th June.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.



Weather in morning fine and bright in many parts both of northern Europe and the British Islands, and also in Italy and south-eastern Europe; as a whole, cloudy and changeable elsewhere—dull in Ireland, with rain in places, foggy on many parts of our south and east coasts. Rain later over all the south-western, western, and northern parts of our Islands, and over Brittany; fine weather prevalent over our eastern and south-eastern counties as a whole, though close and threatening at times. Thunderstorm occurring at Münster in evening.

Temperature in morning exceeding 70° over south-eastern Europe and at most of the Mediterranean stations, as well as at Berlin, Memel, and Riga; exceeding 60° in most other places, but lower at some of our north-eastern stations. Lowest, 42° at Archangel, 49° at Bodö, 51° at Haparanda, 55° at Leith, 56° at Sumburgh Head and Shields. Rising later to 80° and more in the south-west of France and at Berlin, and to between 70° and 77° in many parts of our Islands. Exceeding 85° at several of the French, Italian, and Algerian stations.

Wind Easterly at our northern stations and over the greater part of the North Sea, South-Easterly in Ireland, South-Easterly to South-Westerly over England; Southerly over the Bay of Biscay, variable from the Westward over Spain, extremely variable elsewhere. Rather strong in force in Ireland, moderate to light elsewhere. Backing to North-East at Valencia later, and blowing a moderate gale from the Southward on other parts of our south-west coasts; no important change taking place on Continent.

Barometer highest, 30·0 ins. and more over France, the north of Spain, and the greater part of the Mediterranean, as well as over central Russia and over the west of Norway. Lowest, 29·5 ins. and less in a large depression off our western coasts, and in another over the north of Russia; below 29·9 ins. in a band stretching from the Irish Channel across England and the Netherlands to central and south-eastern Europe, and below 29·8 ins. over Galicia and the neighbouring parts of Russia. Centre of western depression approaching Valencia later; Russian disturbance travelling away in a north-easterly direction.

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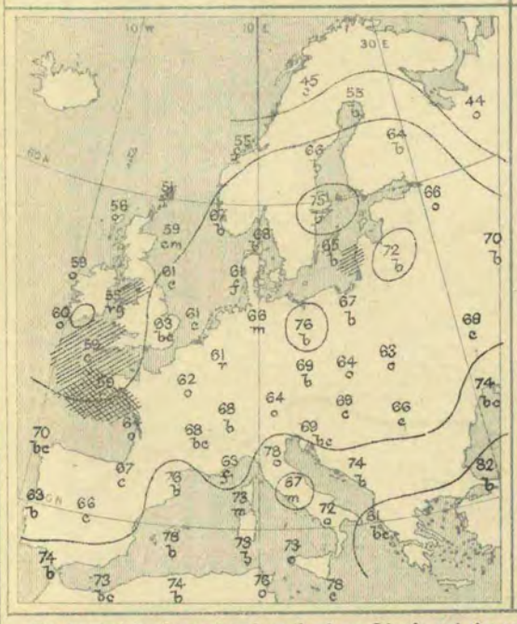
Saturday, 27th June.

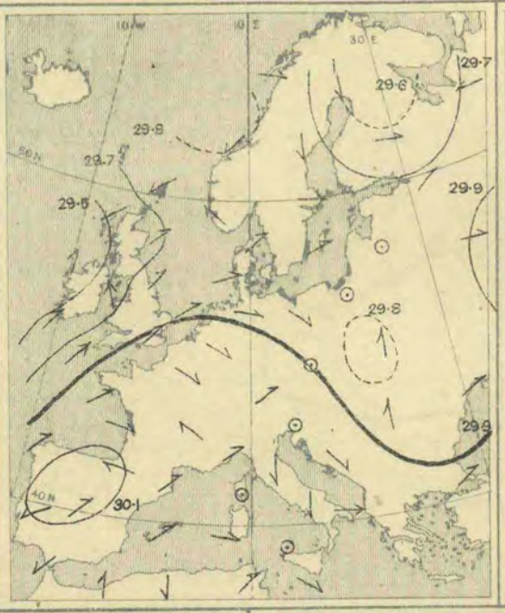
Temperature and Weather.

8 a.m.

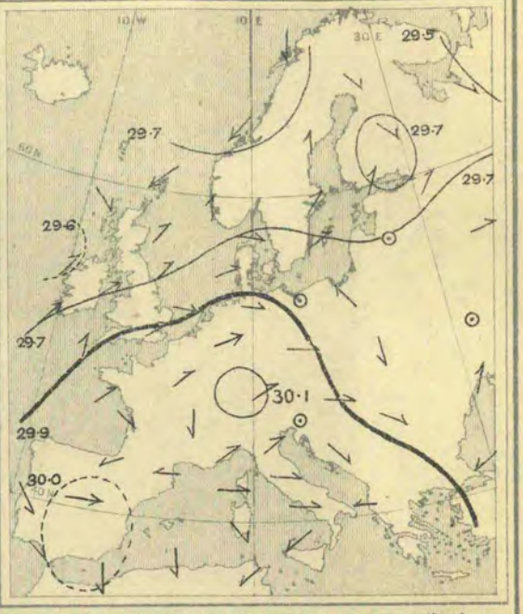


Barometer and Wind.

8 a.m.



6 p.m.



Weather dull in the west and north of our Islands, and also over central France, with rain in Wales and thunder at Nairn. Fair or fine at our eastern, southern, and most of the Continental stations, but foggy at Christiansund, Fanö, and Sumburgh Head. Heavy rain falling later in many parts of Ireland and Scotland, and passing showers at some of the English stations. Thunderstorms occurring in some parts of Scotland, France, and Germany.

Temperature highest, 82° at Constantinople, 81° at Brindisi, and 78° at Nicolaieff, Palma, and Malta; above 76° in nearly all parts of southern and eastern Europe, as well as at some of the Baltic stations, but considerably below that point in the Riviera. Lowest, 44° at Archangel, 45° at Bodö, 51° at Sumburgh Head, and 53° at Wick; below 60° at most of our own western and northern stations. Subsequently rising to between 70° and 75° in the south-east of England, to between 75° and 80° in many parts of France and Germany, and to 90° or more at some of the Spanish, Italian, and Algerian stations.

Wind fresh to strong from the Southward or South-Westward over the west and south of our Islands, but light from the Eastward or North-Eastward in the north of Scotland, and also in the west of Norway. Light or moderate from the South-Westward over Denmark and the Baltic and from the Westward over the greater part of central Europe. Light and variable over France, southern Europe, and Algeria. No important change occurring during day.

Barometer highest, 30·0 ins. to 30·1 ins. in a large anticyclone lying over France, Spain, Algeria, and the western parts of the Mediterranean. Lowest, 29·5 ins. and less in a depression lying off the west of Ireland, 29·6 ins. and less in another disturbance lying over Lapland. Depression in west subsequently moving away in a north-westerly direction, and barometer rising in the west and south of our Islands.

GENERAL NOTES.

In the course of the past week unsettled thundery weather gradually extended from the southward to nearly all parts of central and north-western Europe, while heavy rain fell at many of the English, French, and German stations. Temperature was mostly high for the time of year—more particularly in Scandinavia, where the thermometer frequently rose above 80°.

At the commencement of the period an anticyclone of considerable importance existed over nearly the whole of northern and north-western Europe, while a large but irregularly-formed depression was reported over Spain and Algeria, and a smaller system over the south-west of Russia. The prevailing winds were, therefore, Easterly or North-Easterly, and the weather fair, excepting in Germany, where local thunderstorms were experienced. The Russian depression proved to be of little importance, but the larger disturbance over Spain increased both in size and depth, and spread out in a northerly and easterly direction until it embraced the greater part of western and central Europe. The growth of the system was attended by unsettled, rainy, thundery weather over France, and as time went on this extended northwards and eastwards over all but the most northern parts of the United Kingdom. By the close of the week, when low-pressures were reported in most countries, a series of depressions began to travel northwards along our extreme western coasts; and freshening Southerly winds were setting in over western Europe, while copious falls of rain were beginning to be experienced over the northern parts of the United Kingdom.

REPORTS received too late for insertion in their proper places.

Date of Report.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each Day.	Of Lowest each Day.	For whole of each Day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-Degrees). Above 42° F.	Below 49° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
March 28th, 1891	Fort Augustus	—	—	—	—	—	—	—	—	—	—	—	7·1	?	8	?
„ „ „	Cambridge	—	—	—	—	—	—	—	—	—	—	—	33·2	+1·6	39	+ 5
April 18th, „	Lairg	54	26	48·7	30·8	39·3	−3·0	19	41	5	0·45	−0·08	—	—	—	—
May 2nd, „	Laudale (Loch Sunart)	56	33	52·0	37·5	44·4	−3·4	36	13	6	1·49	+0·61	—	—	—	—
„ 9th, „	Blackpool	61	41	56·7	43·9	49·9	+1·6	55	0	1	0·05	−0·39	27·2	−16·1	25	−15
„ 30th, „	Churchstoke	61	38	54·6	41·0	47·3	−3·7	41	3	6	1·03	+0·53	23·0	−20·4	20	−18
June 6th, „	Stamford (Ketton Hall)	71	40	64·9	48·0	55·9	+0·4	97	0	6	1·52	?	—	—	—	—
„ 13th, „	Eastbourne	—	—	—	—	—	—	—	—	—	—	—	42·6	?	38	?
„ 20th, „	Hastings	70	50	64·5	53·5	58·6	+0·1	116	0	0	—	−0·39	59·4	+8·8	52	+ 8
„ „ „	Newton Reigny	78	46	66·8	50·1	57·9	+3·5	131	0	2	0·02	−0·48	45·2	+0·4	38	0

BRIGHT SUNSHINE Values for the Week in addition to those found on page 146.

Stations.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	Stations.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	38·2	?	32	?	EASTBOURNE	38·6	?	34	?
OSWALDKIRK (Yorkshire)					TORQUAY	46·0*	?	41*	?
WORKSOP	28·9	− 6·3	25	− 5	ARLEY COTTAGE (County Cavan)	59·4	?	50	?
THURCASTON (Leicestershire)	31·5	− 4·5	27	− 5					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 26.] *Third Series.* WEEK ENDING SATURDAY, 4TH JULY, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 152.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	68	39	61·2	49·9	55·1	1 above.	92	+20	0	0	757	+104	621	+ 79
	1. SCOTLAND, EAST -	71	45	65·1	51·5	57·9	2 above.	111	+18	0	0	834	− 48	670	+101
	2. ENGLAND, N.E. - -	73	45	68·4	52·6	59·9	3 above.	125	+22	0	0	808	− 79	593	+ 95
	3. ENGLAND, EAST -	76	46	70·2	53·6	61·3	2 above.	135	+20	0	0	1023	− 60	689	+128
	4. MIDLAND COUNTIES	74	43	68·6	50·8	59·1	0 (average)	120	+ 7	0	0	1063	− 44	668	+116
	5. ENGLAND, SOUTH -	77	45	67·6	55·0	60·8	1 above.	132	+11	0	0	1128	− 65	565	+149
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	70	42	62·2	52·0	56·7	0 (average)	103	+ 7	0	0	981	+ 68	463	+ 46
	7. ENGLAND, N.W. -	72	47	65·2	52·7	58·5	0 (average)	116	+11	0	0	987	+ 18	449*	+ 35
	8. ENGLAND, S.W. -	71	45	63·1	53·0	57·7	1 below.	110	− 2	0	0	1096	− 31	434	+118
	9. IRELAND, NORTH -	73	45	64·3	52·5	58·0	1 above.	112	+13	0	0	1044	+ 27	390	+ 28
	10. IRELAND, SOUTH -	70	42	63·8	52·9	58·0	0 (average)	112	+ 4	0	0	1214	+ 26	309	+ 31
	— CHANNEL ISLANDS -	76	54	66·4	56·8	61·3	2 above.	135	+18	0	0	1248	0	162	+ 40

Rainfall.

	DISTRICTS. (See p. 152.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	5	11	4 more.	110	− 8	21·3	− 0·5
	1. SCOTLAND, EAST -	5	9	3 more.	74	−20	9·5	− 4·6
	2. ENGLAND, N.E. - -	3	4	1 less.	78	−10	8·1	− 3·2
	3. ENGLAND, EAST -	3	4	1 less.	84	− 2	9·3	− 2·0
	4. MIDLAND COUNTIES-	4	5	1 less.	80	− 5	11·1	− 1·8
	5. ENGLAND, SOUTH -	4	4	1 less.	76	− 7	10·7	− 1·8
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	5	6	2 less.	83	−18	14·2	− 8·2
	7. ENGLAND, N.W. - -	4	6	0 (average)	74	−18	10·5	− 4·0
	8. ENGLAND, S.W. - -	7	13	6 more.	80	−14	14·1	− 3·6
	9. IRELAND, NORTH -	6	10	4 more.	95	−12	11·5	− 4·5
	10. IRELAND, SOUTH -	6	13	6 more.	87	−13	13·8	− 4·4
	— CHANNEL ISLANDS -	5	8	3 more.	84	−18	12·3	− 2·1

Bright Sunshine.

	DISTRICTS. (See p. 152.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	16	−24	13	−19	739	+ 75	31	+ 2
	1. SCOTLAND, EAST -	39	+ 9	32	+ 6	762	+ 8	32	− 1
	2. ENGLAND, N.E. - -	49	+14	41	+13	719*	+ 51	31	+ 2
	3. ENGLAND, EAST -	53	+ 8	46	+10	765	− 39	33	− 2
	4. MIDLAND COUNTIES-	42	+ 1	36	+ 2	730	+ 20	31	0
	5. ENGLAND, SOUTH -	56	+ 9	50	+ 8	841	+ 78	36	+ 3
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	32	−10	27	− 9	785	+ 53	34	+ 2
	7. ENGLAND, N.W. - -	51	+10	43	+ 8	740	+ 18	32	+ 1
	8. ENGLAND, S.W. - -	40	− 8	35	− 8	879*	+ 31	38	+ 1
	9. IRELAND, NORTH -	40	+ 5	34	+ 5	773	+ 72	33	+ 2
	10. IRELAND, SOUTH -	36	− 4	31	− 2	834	+ 36	36	+ 1
	— CHANNEL ISLANDS -	61	+ 8	55	+11	1097	+119	48	+ 5

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been in an unsettled condition very generally, with frequent falls of rain and occasional thunderstorms. In most parts of the Kingdom, however, and especially over the east and south of England, there were considerable intervals of fine, bright weather.

Temperature has continued a little above the mean over the greater part of England and Scotland, as well as in "Ireland N." and the "Channel Islands." In the "Midland Counties," "England N.W.," "Scotland W.," and "Ireland S." it has just equalled the normal, while in "England S.W." it has been one degree below. The highest of the maxima, which were recorded either on June 28th or 29th, ranged from 77° in "England S." (in London), and 76° in "England E." and the "Channel Islands," to 68° in "Scotland N." The lowest of the minima were generally registered on July 4th, and ranged from 39° in "Scotland N.," and 42° in "Scotland W." and "Ireland S.," to 47° in "England N.W." and to 54° in the "Channel Islands."

Rainfall has been more than the mean over Ireland, the south-west of England, the "Channel Islands," and the north and east of Scotland, and equal to the mean in "England N.W." In all other districts there has been a slight deficit, although at some isolated stations the fall has been rather large.

Bright Sunshine shows a considerable decrease, and has been below the mean in the north and west of Scotland, as well as in the south-west of England and the greater part of Ireland. In most of the English districts, however, it has been more prevalent than it was last week and has exceeded the mean. The percentage of the possible amount of duration ranged from 55 in the "Channel Islands" and 50 in "England S." to 27 in "Scotland W." and to 13 in "Scotland N."

Barometer and Wind.—During the earlier part of the week depressions moved northwards outside our extreme western coasts and shallow secondary disturbances passed more directly over us. The winds during this time were consequently from between South and South-West, and of moderate strength. By Thursday, however, a disturbance had advanced over the north of Ireland, and subsequently travelled north-eastwards across Scotland. In the rear of this system the barometer rose briskly for a time, and the wind veered to the Westward or North-Westward in all parts of the country.

* This value has been altered slightly owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 151 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	63	45	57·7	48·3	52·7	+ 1·4	75	0	5	0·45	−0·04	*	*	*	*
	Stornoway	60	39	58·1	49·4	53·4	− 0·2	80	0	6	1·75	+1·08	13·5	−24·5	11	−19
	Wick	67	48	62·1	50·4	55·8	+ 2·0	97	0	3	0·50	+0·05	*	*	*	*
	Lairg ℌ	68	40	63·9	49·4	56·2	+ 1·8	99	0	5	0·35	−0·25	*	*	*	*
	Glencarron ℌ												*	*	*	*
	Fort Augustus ℌ	67	43	63·3	50·7	56·8	+ 1·3	104	0	5	1·32	+0·69	17·5	?	14	?
	Fort William ℌ	64	45	61·3	51·2	55·9	− 0·5	97	0	5	2·07	+1·00	17·2	?	14	?
1. SCOTLAND, E.	Nairn	70	49	64·4	51·3	57·4	+ 0·7	108	0	5	0·80	+0·31	*	*	*	*
	Aberdeen	67	52	64·3	53·3	58·6	+ 2·7	116	0	5	0·79	+0·29	50·2	+ 8·2	41	+ 6
	Braemar ℌ	64	46	62·2	48·9	55·1	+ 1·6	92	0	7	1·78	+1·17	22·0†	? †	18†	?†
	Ochtertyre ℌ	69	45	66·0	50·1	57·5	+ 1·2	109	0	6	0·66	−0·03	*	*	*	*
	Leith	71	50	67·7	54·4	60·6	+ 3·2	130	0	4	0·40	−0·12	*	*	*	*
	Marchmont ℌ	70	47	65·6	51·1	57·9	+ 2·4	111	0	4	0·67	−0·02	44·0	?	37	?
2. ENGLAND, N.E.	Alnwick Castle	68	48	66·1	52·3	58·7	+ 3·0	117	0	5	0·76	+0·21	*	*	*	*
	Durham	73	50	69·6	52·4	60·4	+ 2·8	129	0	3	0·22	−0·34	44·4	+ 8·5	37	+ 6
	Shields	72	49	67·1	52·6	59·3	+ 2·8	121	0	2	0·08	−0·40	*	*	*	*
	Scarborough ℳ	73	50	70·1	52·2	60·5	+ 3·0	130	0	4	0·71	+0·21	*	*	*	*
	York	72	45	69·1	50·6	59·2	+ 0·3	120	0	3	0·38	−0·16	58·5	+ 20·7	50	+19
	Spurn Head	71	52	68·4	55·3	61·4	+ 3·0	136	0	2	0·41	+0·03	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	76	46	70·8	52·5	61·0	+ 1·4	133	0	4	0·25	−0·33	52·4	+ 9·4	45	+ 9
	Yarmouth	72	51	67·9	55·6	61·3	+ 2·1	135	0	2	0·36	−0·16	*	*	*	*
	Geldeston	74	49	70·8	53·9	61·8	+ 2·9	139	0	1	0·30	−0·18	59·4	+12·3	52	+10
	Cambridge	76	47	72·9	53·3	62·4	+ 1·9	143	0	2	0·94	+0·40	54·2	+10·7	47	+ 9
	Rothamsted	74	47	68·7	52·6	60·1	+ 0·7	127	0	5	0·33	−0·24	45·7	?	39	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	74	43	69·9	50·1	59·3	0·0	121	0	4	0·51	−0·07	*	*	*	*
	Loughborough	74	45	70·3	53·3	61·2	+ 0·5	134	0	5	0·36	−0·15	*	*	*	*
	Stamford (Ketton Hall)	74	44	70·9	50·6	60·0	− 0·4	126	0	2	0·17	?	*	*	*	*
	Cheadle ℳ	68	46	65·7	49·2	56·9	− 0·4	104	0	3	0·28	−0·40	*	*	*	*
	Churchstoke ℳ	70	44	66·6	49·4	57·4	+ 0·1	108	0	5	0·40	−0·13	43·1	+ 3·0	37	+ 2
	Hereford ℳ	71	47	68·8	50·7	59·1	− 0·7	120	0	5	0·45	−0·07	*	*	*	*
	Cirencester	71	44	67·9	49·6	58·1	− 0·3	113	0	6	1·24	+0·64	35·1	− 7·0	31	− 6
	Oxford	72	48	68·9	53·1	60·5	+ 0·5	130	0	4	0·26	−0·29	43·0	+ 0·3	37	0
5. ENGLAND, S.	London	77	50	71·4	55·1	62·7	+ 1·2	145	0	4	0·87	+0·35	46·6 †	+ 7·8†	41†	+ 6†
	Strathfield Turgiss ℳ	75	45	71·0	52·7	61·2	+ 1·0	134	0	5	0·27	−0·23	*	*	*	*
	Dungeness	69	56	65·4	56·9	60·9	+ 0·7	132	0	3	0·04	−0·36	*	*	*	*
	Hastings (St. Leonards)	69	54	65·6	56·1	60·5	+ 0·1	130	0	2	0·03	−0·39	65·7	+16·5	58	+14
	Southampton	72	49	69·1	55·1	61·6	+ 0·7	137	0	6	0·50	0·00	49·7	+ 3·0	44	+ 2
	Hurst Castle	70	53	65·6	56·7	60·8	+ 0·7	132	0	4	0·19	−0·29	*	*	*	*
	Stowell ℳ	71	47	64·8	52·2	58·1	− 1·0	113	0	6	0·82	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	65	47	62·4	49·9	55·7	− 0·5	96	0	7	1·59	+0·37	*	*	*	*
	Glasgow	66	48	64·0	53·1	58·2	+ 1·2	113	0	5	0·32	−0·38	26·7	− 8·3	22	− 8
	Ardrossan	63	52	60·9	53·7	57·1	− 0·4	106	0	6	0·44	−0·18	*	*	*	*
	Glenlee ℌ	70	42	63·0	51·7	57·0	+ 0·7	105	0	6	0·68	−0·17	*	*	*	*
	Douglas (Isle of Man)	63	48	60·5	51·4	55·6	− 1·0	95	0	3	0·18	−0·41	38·0	−10·0	32	− 9
7. ENGLAND, N.W.	Newton Reigny	67	47	64·5	51·6	57·6	+ 1·0	109	0	5	1·12	+0·52	38·7	− 3·1	33	− 1
	Stonyhurst	72	49	66·3	51·9	58·6	+ 0·4	116	0	2	0·55	−0·35	54·9	+14·1	47	+12
	Blackpool ℳ	72	52	65·9	55·1	60·1	+ 1·7	127	0	3	0·82	+0·23	56·2	+15·0	48	+13
	Manchester	71	47	66·5	51·4	58·4	+ 0·5	115	0	4	0·39	−0·40	*	*	*	*
	Liverpool Obsy. (Bidston)	68	51	66·1	53·1	59·2	− 0·1	120	0	4	0·75	+0·19	*	*	*	*
	Llandudno ℳ	69	50	65·1	53·3	58·8	− 0·2	118	0	3	0·35	−0·14	52·5	+13·5	45	+11
	Holyhead	65	50	61·7	52·6	56·7	− 1·5	103	0	6	0·30	−0·18	*	*	*	*
8. ENGLAND, S.W.	Llandovery	70	47	66·0	52·1	58·6	− 0·3	116	0	7	1·45	+0·70	*	*	*	*
	Pembroke	61	53	59·3	54·1	56·5	− 1·7	102	0	6	1·39	+0·91	50·0	− 0·5	43	− 2
	Arlington (N. Devon)	67	48	63·4	52·1	57·4	− 0·1	108	0	6	1·01	+0·11	*	*	*	*
	Cullompton ℳ	71	45	65·7	51·1	57·9	− 1·5	111	0	7	1·06	+0·46	30·7	−12·2	27	−11
	Falmouth	65	52	63·6	54·6	58·8	− 0·3	118	0	7	1·56	+0·92	36·6	−14·8	33	−12
	Plymouth															
	Prawle Point	61	52	60·7	53·7	57·0	− 0·7	105	0	6	1·16	+0·72	*	*	*	*
9. IRELAND, N.	Malin Head	70	51	62·6	53·0	57·5	+ 0·9	109	0	7	1·14	?	*	*	*	*
	Londonderry	73	51	66·7	52·7	59·2	+ 1·1	120	0	6	1·45	+0·77	*	*	*	*
	Mullaghmore	68	49	62·6	52·6	57·3	− 0·4	107	0	6	1·11	+0·37	*	*	*	*
	Belmullet	68	51	63·0	54·0	58·2	+ 1·6	113	0	6	1·21	?	*	*	*	*
	Markree Castle	69	47	63·6	50·5	56·6	+ 0·4	102	0	6	1·13	+0·33	40·7	+ 8·1	35	+ 8
	Brookeborough	68	49	65·1	52·5	58·4	+ 1·9	115	0	6	0·74	+0·04	*	*	*	*
	Armagh	69	46	65·5	51·8	58·2	+ 1·9	113	0	6	1·30	+0·71	38·2	+ 2·3	33	+ 3
	Donaghadee	66	54	63·9	55·1	59·2	+ 2·5	120	0	5	0·17	−0·33	*	*	*	*
	Edgeworthstown	69	45	65·9	50·3	57·6	+ 0·3	109	0	5	1·10	−0·36	*	*	*	*
10. IRELAND, S.	Dublin	70	50	65·2	54·1	59·3	+ 0·2	121	0	6	0·93	+0·45	44·3	+ 5·1	38	+ 5
	Parsonstown	68	49	65·6	52·6	58·7	+ 0·9	117	0	7	1·57	+0·95	30·6	− 6·2	26	− 6
	Kilkenny	66	44	64·1	52·1	57·7	− 0·4	110	0	7	0·75	+0·22	*	*	*	*
	Waterford	68	42	65·3	54·0	59·3	− 0·4	121	0	5	1·47	+0·87	*	*	*	*
	Roche's Point	64	48	62·0	53·9	57·7	− 1·4	110	0	6	1·46	+0·72	*	*	*	*
	Valencia	62	46	61·0	53·7	57·1	− 0·7	106	0	5	1·45	+0·65	33·0	− 7·7	29	− 6
	Killarney	64	42	63·0	49·4	55·7	− 1·8	96	0	7	1·77	?	*	*	*	*
	Foynes	68	50	64·1	53·0	58·2	+ 0·3	113	0	7	0·72	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	67	56	64·1	56·6	60·1	+ 1·2	127	0	6	1·11	+0·62	*	*	*	*
	Jersey	76	54	68·7	57·0	62·4	+ 1·7	143	0	4	0·54	+0·05	61·0	+ 8·5	55	+ 7

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

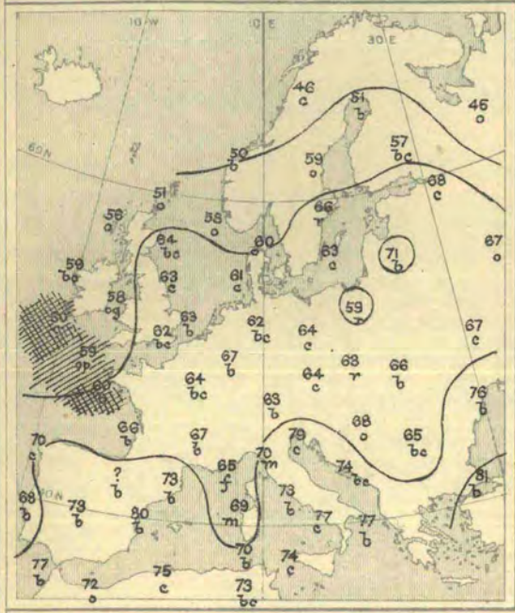
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

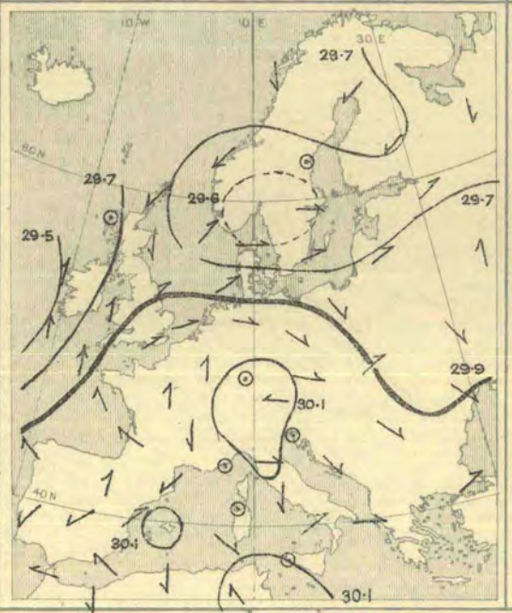
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 28th June.

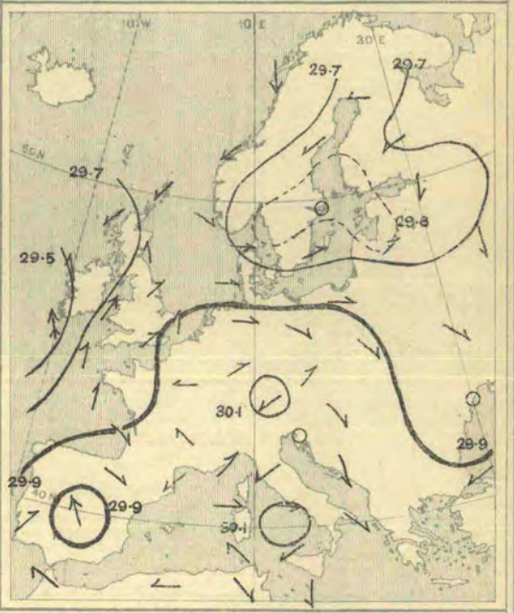
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fair over the greater part of Europe and very fine in nearly all the southern countries; dull and showery in the extreme northwest of our Islands, and rainy at some of the Baltic stations, as well as at Cracow. Rain falling later in all the more western and northern parts of the United Kingdom and France; heavily at some of the Irish and Scotch stations. Thunderstorms very prevalent in France, local showers over northern Europe.

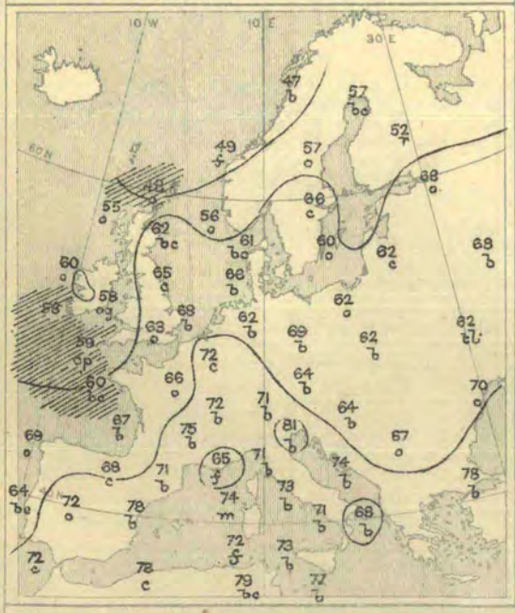
Temperature highest, 81° at Constantinople, 80° at Barcelona, 79° at Trieste, 77° at Brindisi, and 76° at Odessa; above 70° in most parts of southern and eastern Europe. Lowest, 45° at Archangel, 46° at Bodö, 50° at Christiansund and Wick, and 51° at Haparanda and Sumburgh Head; below 60° in Ireland and the west and south-west of England. Rising during day to 75° or more in the south of England, to 80° or more at several of the French, Austrian, and Italian stations, to 88° at Biarritz, and to upwards of 100° over central Algeria.

Wind Northerly in Norway, very variable in Scotland, Southerly over Ireland and England, and the west and north of France; light or moderate in force generally, but strong in the south of Ireland. Moderate from the South-Westward over Denmark, the Baltic, and the south of Scandinavia, and Westerly over Germany and Austria. Light and variable over the southern and south-eastern countries, as well as in Algeria and the central parts of France. Subsequently shifting to the Westward in the west of France, but backing to South-East or East at some of the Channel stations.

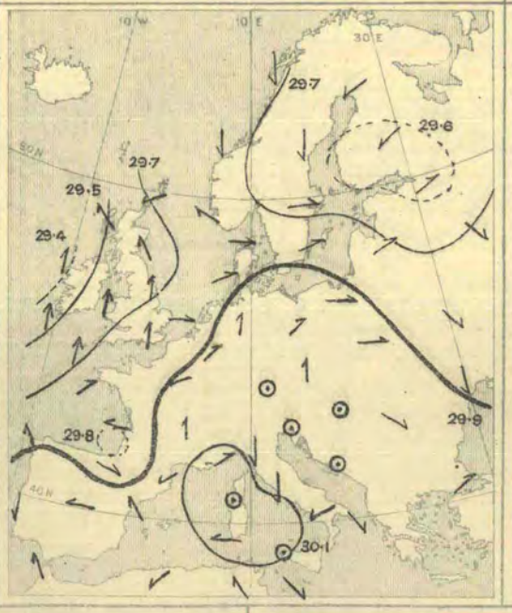
Barometer highest, 30·2 ins. to 30·0 ins. over central and southern Europe, and exceeding 30·1 ins. over Sicily, Tunis, and the neighbouring parts of the Mediterranean. Lowest, 29·6 ins. and less in a depression lying off the west of Ireland, and also in another disturbance over the southern half of Scandinavia. Falling in our Islands during day, and a shallow secondary disturbance beginning to appear over the west of France.

Monday, 29th June.

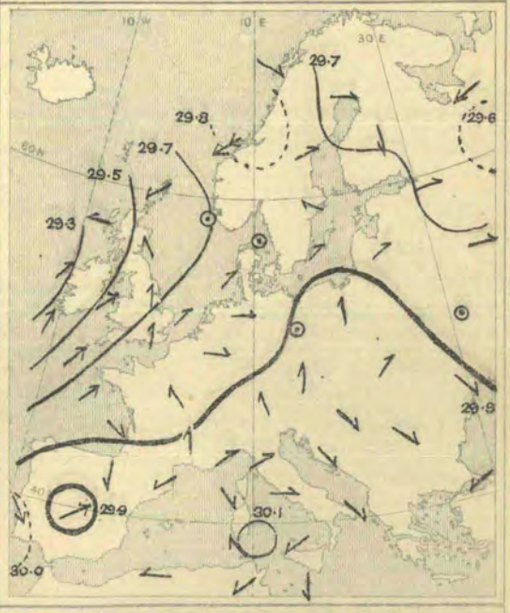
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather cloudy and showery at several of the English, Irish and French stations. Fine in Scotland and also over the greater part of the Continent, but dull in some parts of Sweden and Russia, with rain at Kuopio and Helsingfors, and a thunderstorm at Kiev. Heavy rain falling in Ireland later, and thunderstorms occurring in various isolated parts of north-western Europe.

Temperature highest, 81° at Trieste, 79° at La Calle, Aumale, and 78° at Barcelona, Algiers, and Constantinople; above 70° in most parts of southern and eastern Europe, and above 65° in many other localities. Lowest, 47° at Bodö, 48° at Sumburgh Head, 49° at Christiansund, 52° at Kuopio, and 55° at Stornoway; below 60° at many of our own western stations. Daily maxima over England ranging between 70° and 76°, but thermometer exceeding 80° over Germany and the south of France, and reaching 91° at Perpignan.

Wind Southerly over England, Ireland, and the Netherlands, and fresh or strong in force on our western coast, light from the Eastward in the north of Scotland, and from Northward over the greater part of Scandinavia. Moderate from the Westward over Denmark and the Baltic, light from North-West or North over the central and southern parts of Russia; variable over central and southern Europe. No important change occurring during day.

Barometer highest, 30·0 ins. to 30·1 ins. in a large anticyclone extending northwards from the Mediterranean over Italy, Austria, Switzerland, and Germany. Lowest, 29·4 ins. and less in a well-marked depression lying off the west of Ireland, 29·6 ins. and less in a shallow disturbance lying over Finland. Depression in west joined later in day by new system from the south-westward and barometer falling in all parts of the United Kingdom; depression in north passing away to north-eastward.

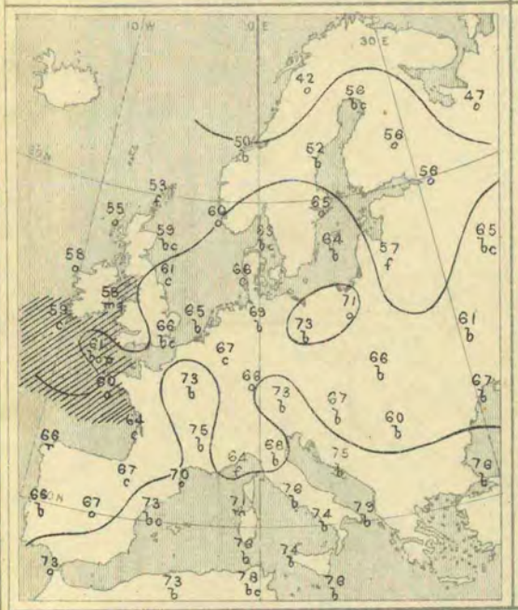
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 30th June.

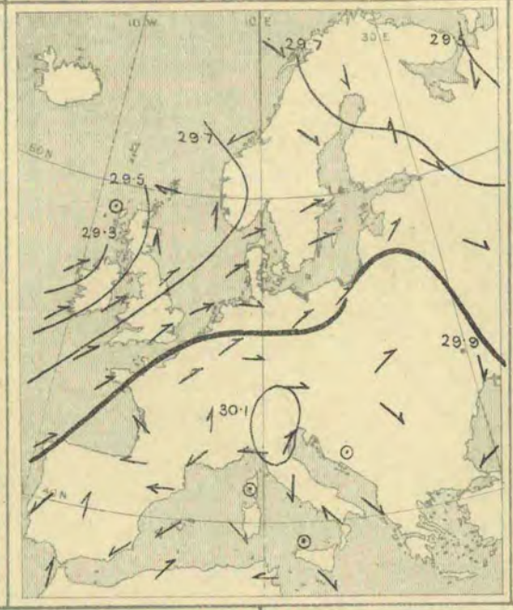
Temperature and Weather.

8 a.m.



Barometer and Wind.

8 a.m.



6 p.m.

Weather in morning fine and bright over the Mediterranean, and southern, south-eastern, and central Europe generally, as well as in Sweden and several parts of France and England; dull and unsettled at our western stations, with rain in places; foggy at Sumburgh Head. Rain later in many parts of Ireland, England, and France (heavy at Scilly, Jersey, and Paris), and a large quantity at Berlin and some parts of the Baltic Provinces. Thunderstorms at many of the French stations.

Temperature exceeding 70° over the Mediterranean and Adriatic, and at Munich and Constantinople, and exceeding 60° in all but the northern countries, but as low as 47° at Archangel and Haparanda, 50° at Christiansund, 53° at Sumburgh Head, 55° at Stornoway and Malin Head. Rising to 70° or more in several parts of England and France later, to upwards of 80° in the south and south-west of France, to 90° and more in several parts of Italy and Algeria, 104° at Biskra.

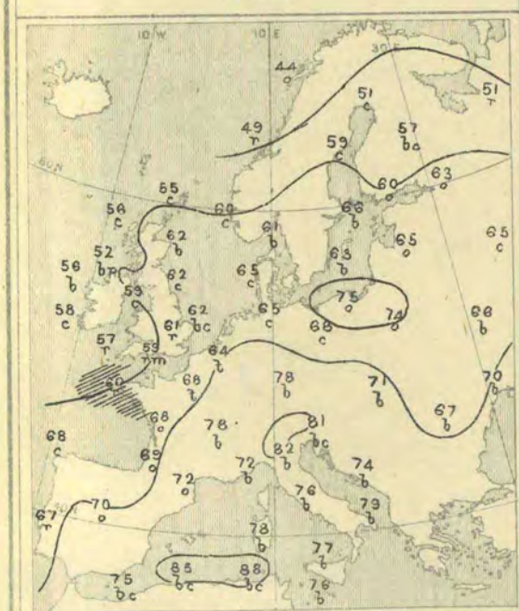
Wind extremely light and variable over the Continent and Mediterranean, and light to moderate in force; Southerly to South-Westerly in our Islands—strong to a moderate gale at the western stations; moderate elsewhere. Backing South-Eastwards in Scotland later, but little other change reported.

Barometer highest, 30·1 ins. to 29·9 ins. all over southern, south-western, and central Europe, and above 29·7 ins. in a "col" stretching from the Baltic across Scandinavia. Lowest, 29·3 ins. and less in a depression off our north-western coasts, and below 29·6 ins. over the north of Russia. Rising briskly in Ireland later, but falling a little in Norway as the depression off our north-west coasts moved northwards.

Wednesday, 1st July.

Temperature and Weather.

8 a.m.



Barometer and Wind.

8 a.m.

6 p.m.

Weather in morning fine and bright over south-eastern and southern Europe, with the Mediterranean; cloudy and changeable elsewhere, with rain in many parts of the northern and western countries, thunder at Paris. Rain falling later in considerable quantity in several parts of England, Belgium, and Germany, and in small quantity at most of the Irish and Scotch stations. Thunder occurring in some parts of France.

Temperature changing little and irregularly in most places. Rising rather decidedly over the Mediterranean. Morning readings exceeding 80° at Algiers, La Calle, Florence, and Trieste, and exceeding 70° over southern and central Europe generally. Lowest, 44° at Bodö, 51° at Archangel and Haparanda, 52° at Malin Head, 55° at Ardrossan and Sumburgh Head, and 56° at Belmullet. Rising to about 70° in some parts of England later, to between 75° and 77° in Sweden, and to between 80° and 90° over Germany; exceeding 90° in many parts of Italy and Algeria, the highest readings of all being 102° at Biskra and Laghouat, and 95° at Cape Bearn.

Wind variable from between South and South-West over the north-western countries generally, Southerly to South-Easterly over Germany, variable elsewhere; light to moderate in force generally. Becoming strong from South and South-West at our south-western and southern stations later; little change elsewhere.

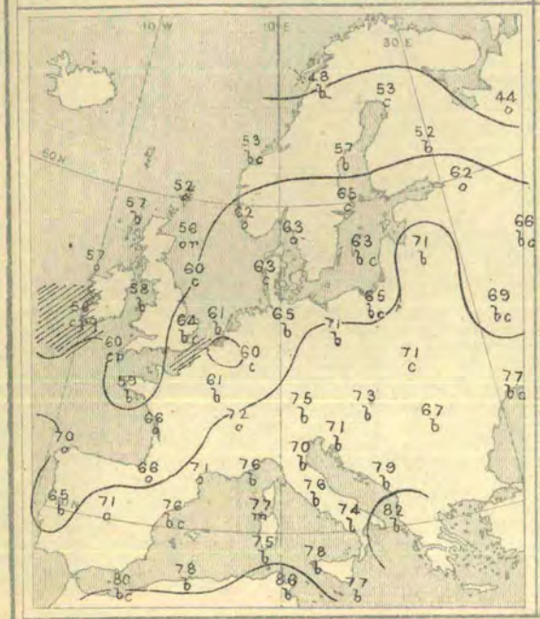
Barometer highest, 30·0 ins. and more over the southern half of Spain, the whole of the Mediterranean and south-eastern Europe, as well as over central Russia. Lowest, about 29·5 ins. off our extreme north-west coasts, and 29·6 ins. over the Gulf of Bothnia. Gradients very irregular, but not steep. Inclined to fall in various parts of our Islands later as some local disturbances moved northwards towards England and Ireland. No important change occurring elsewhere.

Judd & Cº Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 2nd July.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.

Weather in morning showery at several of our western stations, and rainy at Aberdeen and Faerder; fair or fine in nearly all other parts of Europe. Dull over the west of France, and also in Poland and eastern Germany. Showers falling later over nearly the whole of the United Kingdom, and thunderstorms with heavy rain occurring at several of the French stations.

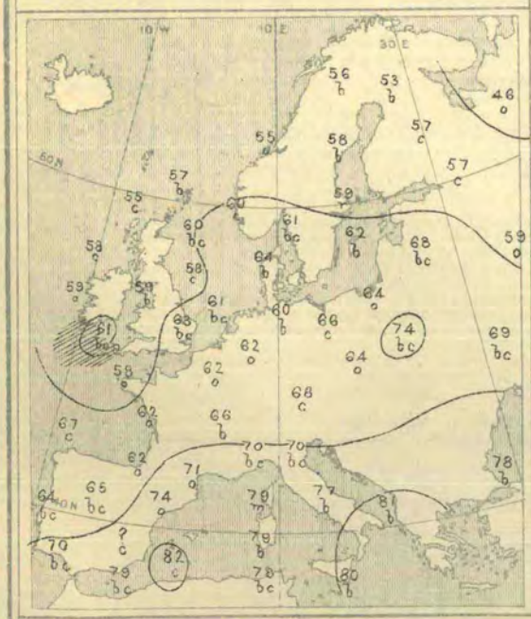
Temperature highest, 86° at Tunis, 82° at Brindisi, 80° at Oran and La Calle, and 79° at Lésina; above 75° in many parts of southern and eastern Europe, and a little above 70° at some of the central stations. Lowest 44° at Archangel, 48° at Bodö, 51° at Ulcaborg, and 52° at Sumburgh Head and Kuopio; below 60° in many parts of the United Kingdom. Daily maxima not touching 70° over nearly the whole of our Islands, but exceeding 80° in many parts of France and Germany, and exceeding 90° in Italy and 100° at Biskra (Algeria).

Wind moderate to fresh from the South-Westward over Ireland, England, the southern parts of the North Sea, the Netherlands, and Germany, but variable in Scotland, and light or moderate from the North-Eastward or Northward over Scandinavia and northern Russia. Light variable breezes reported over the whole of southern and eastern Europe. Subsequently veering to the Westward or North-Westward in Ireland and light South-Easterly and Easterly breezes setting in over Scotland; Northerly breeze over Finland and northern Russia dying down.

Barometer highest, 30·1 ins. and upwards in an anticyclone lying over and to the westward of Portugal, 30·0 ins. and upwards in many parts of France, Switzerland, and south Germany. Lowest, 29·6 ins. and less in a well-marked depression lying over the north-west of Ireland, 29·7 ins. and less in a large shallow area lying over northern Russia. Irish depression subsequently moving north-eastwards slowly and barometer rising on our west and south-west coasts.

Friday, 3rd July.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.

Weather in morning fine and bright over south-eastern and southern Europe, and in many parts of Sweden, Denmark, Holland, and the eastern half of England, very variable elsewhere; cloudy at many western stations, showery at Scilly. Thunder-showers in several parts of France and Great Britain later; showers in west and north Germany; rainfall heavy in some localities, slight in others; no rain in the north of England nor along our South Coast.

Temperature falling over central and southern Europe, changing irregularly elsewhere. Morning readings exceeding 80° at Algiers, Brindisi, and Malta, and exceeding 70° at the Mediterranean stations generally and at Constantinople; below 60° over the greater part of our Islands and Scandinavia, and as low as 46° at Archangel, 53° at Haparanda, 54° at Wick and Nairn, 55° at Stornoway, Malin Head, and Roche's Point. Failing to reach 70° over the major part of the United Kingdom during day, not touching 80° at any of the German and only a few of the French stations, and scarcely reaching 90° in Italy and Algeria.

Wind moderate over the British Isles and their neighbourhood, as well as in Portugal, light elsewhere. Mainly North-Westerly in Ireland, Westerly and South-Westerly over England, the Netherlands and Denmark, and also in the North of France, Northerly in Portugal, variable elsewhere. The North-Westerly wind in Ireland spreading to Scotland, Wales, and the south-west of England later; hardly any other change reported.

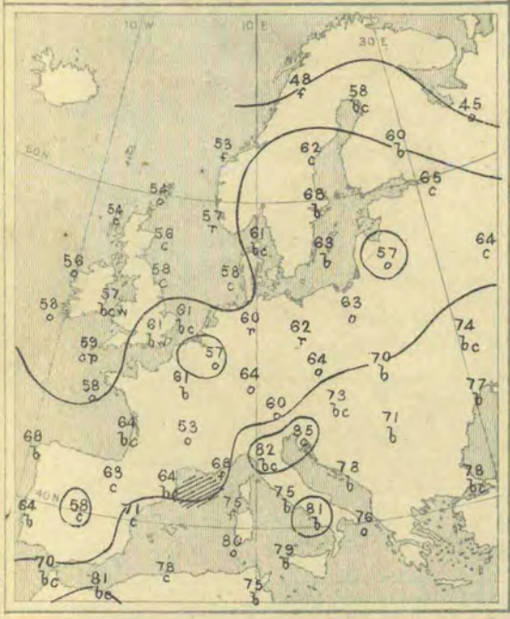
Barometer highest, 30·1 ins. to 29·9 ins. in a high-pressure system stretching in from the Atlantic over Spain, France, Germany, and the Mediterranean. Lowest, 29·7 ins. and less in a complex depression over Scotland and off the west of Norway, as well as in a larger and more shallow disturbance over the northern half of Russia. Gradients slight and variable. Rising over the United Kingdom later, but shallow local disturbances appearing in various places.

Judd & Co Lith 73 & 75, Farringdon Rd & Doctors Commons.

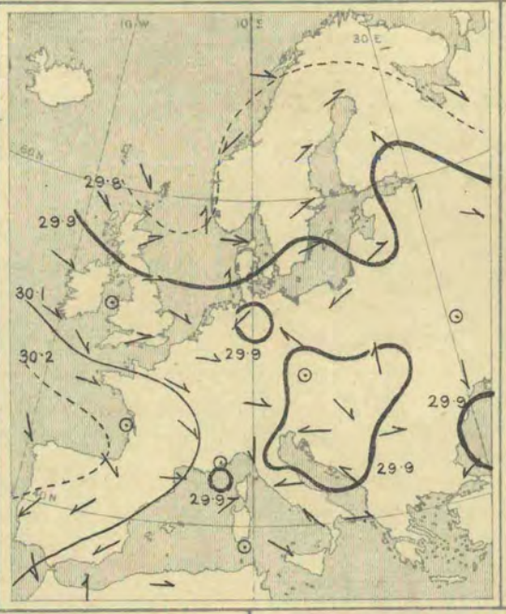
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 4th July.

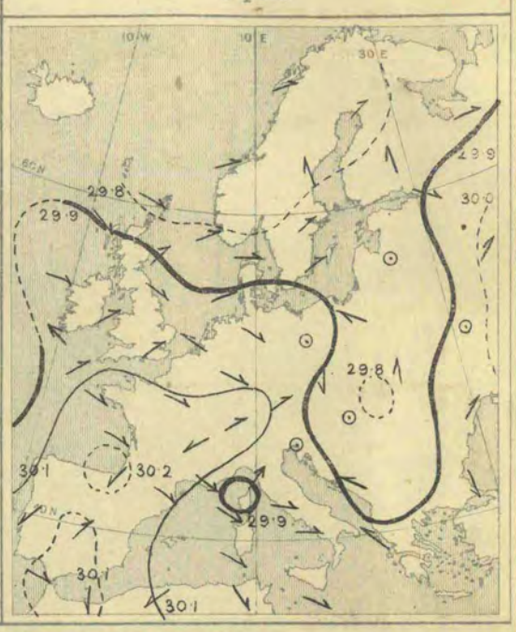
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fair or fine over the greater part of Europe, but dull at many of the German and Baltic stations, with rain at Helsingfors, Copenhagen, Berlin, and Cuxhaven. Fog reported in the west of Norway. Showers falling during day in many parts of our Islands and France; heavy rain occurring at Munich and a thunderstorm reported at Morocco.

Temperature highest, 85° at Trieste, 82° at Florence, 81° at Naples and Oran, and 80° at Cagliari; above 70° over the whole of Italy, the Mediterranean, and eastern Europe, but below 60° over central Spain. Lowest, 45° at Archangel, 48° at Bodö, 53° at Christiansund and Wick, and 54° at Sumburgh Head and Stornoway; below 60° in most parts of the United Kingdom, and also over central France. Subsequently rising to 70° or a little more over the inland parts of England and France, to 80° or more in Spain, and to 90° or more at several of the Italian and Algerian stations.

Wind light from the Westward or North-Westward over our Islands and the north of France, and from the South-Westward or Southward over Scandinavia, Denmark, and the Baltic. Variable over Russia, Italy, and the greater part of central Europe; North-Easterly in Spain; South-Easterly or Southerly in Algeria. Subsequently backing to the South-Westward at many of the English stations and to the South-Eastward in the south of Ireland.

Barometer highest, 30·2 ins. and upwards in an anticyclone lying over the Bay of Biscay and the north of Spain, 30·0 ins. and upwards in another system lying over Russia. Lowest, 29·8 ins. and less in a large area lying to the northward of our Islands and the westward of Norway, 29·9 ins. and less in another large system over Austria, and also in a small disturbance over north Germany. New depression approaching the south-west of our Islands later, and barometer falling rather briskly in the south of Ireland; no important change elsewhere.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟿ = a heavy gale; ⟿ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During the earlier half of last week a large anticyclonic system covered the whole of the Mediterranean and a considerable portion of southern and eastern Europe, in which localities the wind was light and variable, and the weather fine, dry, and warm. Over the north-western and northern countries, however, the conditions were very unsettled, for while a large shallow area of low pressure existed over Scandinavia and northern Russia, a series of well-marked depressions travelled in a northerly direction along the west coasts of the British Islands, the latter disturbances being attended by secondary systems, which advanced from Spain across the Bay of Biscay to our own south and east coasts. Over the United Kingdom and France the winds were, therefore, mainly Southerly and the weather showery, with occasional thunderstorms.

During the latter part of the week the large anticyclone in the south gradually broke up, while the depressions which approached our Islands from the Atlantic travelled in a more easterly course, and passed directly over the western and northern parts of the United Kingdom. No very important change occurred in the weather either in the neighbourhood of the high-pressure or the low-pressure systems, but the wind over all the more northern countries became Westerly, while temperature showed an inclination to fall.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 152.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	37·9	?	32	?	EASTBOURNE	63·7	?	56	?
OSWALDKIRK (Yorkshire)	42·9	?	37	?	TORQUAY	41·0 *	?	37 *	?
WORKSOP	44·7	+ 9·8	39	+ 8	ARLEY COTTAGE (County Cavan)	39·7	?	34	?
THURCASTON (Leicestershire)	44·5	+ 8·5	38	+ 6					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

Judd & Cº Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 27.] *Third Series.* WEEK ENDING SATURDAY, 11TH JULY, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 158.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	68	45	59·1	49·1	53·8	1 below.	8	+ 7	0	0	840	+106	621	+ 79
	1. SCOTLAND, EAST -	74	40	64·7	49·0	56·3	0 (average)	100	+ 2	0	0	934	− 53	670	+101
	2. ENGLAND, N.E. - -	76	43	63·7	50·7	56·7	1 below.	103	− 6	0	0	911	− 94	593	+ 95
	3. ENGLAND, EAST -	71	48	65·2	51·3	57·8	2 below.	111	−10	0	0	1134	− 78	689	+128
	4. MIDLAND COUNTIES	74	44	65·2	50·2	57·2	3 below.	106	−12	0	0	1169	− 64	668	+116
	5. ENGLAND, SOUTH -	77	44	65·8	52·4	58·6	2 below.	116	−10	0	0	1244	− 81	565	+149
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	67	44	61·7	49·9	55·4	2 below.	94	− 5	0	0	1075	+ 54	463	+ 46
	7. ENGLAND, N.W. -	69	46	61·7	51·1	56·0	3 below.	98	−11	0	0	1035	0	449	+ 35
	8. ENGLAND, S.W. -	71	42	61·9	50·5	55·8	3 below.	97	−18	0	0	1193	− 53	434	+118
	9. IRELAND, NORTH -	66	41	59·5	50·0	54·4	3 below.	87	−14	0	0	1131	+ 3	390	+ 28
	10. IRELAND, SOUTH -	69	41	61·9	51·3	56·2	3 below.	99	−12	0	0	1313	+ 8	309	+ 31
	— CHANNEL ISLANDS -	69	49	62·5	54·1	58·0	3 below.	112	−10	0	0	1360	− 15	162	+ 40

Rainfall.

	DISTRICTS. (See p. 158.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	5	11	5 more.	115	− 7	22·4	− 0·2
	1. SCOTLAND, EAST -	4	8	2 more.	78	−20	10·3	− 4·4
	2. ENGLAND, N.E. - -	3	5	0 (average)	81	−10	8·6	− 3·2
	3. ENGLAND, EAST -	4	8	2 more.	88	− 1	10·1	− 1·8
	4. MIDLAND COUNTIES-	4	9	3 more.	84	− 4	12·0	− 1·6
	5. ENGLAND, SOUTH -	4	6	1 more.	80	− 6	11·3	− 1·6
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	4	6	2 less.	87	−18	14·8	− 8·4
	7. ENGLAND, N.W. - -	4	9	2 more.	78	−17	11·4	− 3·8
	8. ENGLAND, S.W. - -	4	6	1 less.	84	−14	14·7	− 3·6
	9. IRELAND, NORTH -	4	6	1 less.	99	−13	12·1	− 4·6
	10. IRELAND, SOUTH -	3	3	4 less.	90	−13	14·1	− 4·8
	— CHANNEL ISLANDS -	3	2	3 less.	87	−19	12·5	− 2·5

Bright Sunshine.

	DISTRICTS. (See p. 158.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	17	−24	13	−19	756	+ 58	31	+ 2
	1. SCOTLAND, EAST -	34	−15	28	−13	796	+ 9	32	0
	2. ENGLAND, N.E. - -	29	− 6	25	− 6	748	+ 39	31	+ 1
	3. ENGLAND, EAST -	35	−13	31	−11	800	− 55	33	− 3
	4. MIDLAND COUNTIES-	39	− 4	34	− 2	769	+ 12	32	+ 1
	5. ENGLAND, SOUTH -	39	− 8	35	− 8	880	+ 68	36	+ 2
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	30	−10	25	−10	815	+ 42	33	+ 1
	7. ENGLAND, N.W. - -	27	−13	23	−11	767	+ 2	31	− 1
	8. ENGLAND, S.W. - -	44	− 1	39	− 3	923	+ 26	38	0
	9. IRELAND, NORTH -	14	−20	12	−16	787	+ 54	32	+ 2
	10. IRELAND, SOUTH -	21	−17	18	−14	855	+ 21	35	0
	— CHANNEL ISLANDS -	49	− 3	44	− 4	1146	+113	48	+ 5

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather was unsettled and showery during the early part of the week, with thunderstorms and heavy falls of rain in many places. Towards the close of the period, however, the weather improved considerably, and was mostly fair and dry.

Temperature was a little below the mean in all districts, excepting "Scotland E.," the deficit ranging from 1° in "Scotland N." and "England N.E." to 3° in most other parts of the Kingdom. The highest readings were observed mostly on the 10th, but at some of the extreme western and northern stations they occurred earlier in the week. With the exception of "England N.E." and "England S." there was no district in which the thermometer reached 75°, and in the majority of "Grazing districts," with the addition of "Scotland N.," the readings were in all cases below 70°. The lowest readings were observed on varying dates, the thermometer falling below 45° in most parts of the country, and reaching a minimum of 40° in "Scotland E." (at Ochtertyre).

Rainfall amounted to a little more than the mean in most of the "Wheat-producing districts," and to a little less than the normal in most of the "Grazing districts." In "England N.W.," however, there was a slight excess, while in "England N.E." the average amount was just reached.

Bright Sunshine was very deficient, the percentage of the possible amount ranging from only 12 in "Ireland N." 13 in "Scotland N.," and 18 in "Ireland S." to 35 in "England S." and 44 in the "Channel Islands."

Barometer and Wind.—During the early part of the week a well-marked depression travelled eastwards across the more northern parts of the Kingdom to the North Sea, its passage being accompanied by strong South-Westerly to Westerly winds in the west and south, but by variable or South-Easterly breezes in the north. In its rear, however, the barometer rose generally and an anticyclone spread over the Kingdom from the Atlantic, the wind falling light in all districts and blowing mostly from the Northward or North-Westward.

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II.—DATA from which the SUMMARY on page 157 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ℌ	59	45	55·7	47·7	51·4	− 0·5	66	0	5	0·18	−0·32	*	*	*	*
	Stornoway ℌ	60	46	57·1	48·6	52·6	− 0·4	74	0	5	0·65	−0·03	11·5	−24·0	9	−19
	Wick ℌ	62	46	58·0	49·3	53·6	− 0·9	81	0	5	1·22	+0·73	*	*	*	*
	Lairg ℌ	67	45	59·6	48·6	53·7	− 1·1	82	0	4	1·69	+1·56	*	*	*	*
	Glencarron ℌ												*	*	*	*
	Fort Augustus ℌ	68	47	62·0	50·0	55·6	− 0·6	95	0	4	1·38	+1·19	18·5	?	15	?
	Fort William ℌ	66	47	61·9	50·2	55·6	− 0·9	95	0	4	1·21	+0·08	19·7	?	16	?
1. SCOTLAND, E.	Nairn ℌ	69	45	63·3	49·9	56·1	− 0·3	99	0	5	2·55	+2·03	*	*	*	*
	Aberdeen ℌ	68	47	63·7	50·6	56·7	+ 0·1	103	0	2	0·13	−0·42	30·1	−10·3	25	− 8
	Braemar ℌ	70	45	62·7	47·2	54·4	+ 0·4	87	0	4	0·45	−0·18	33·7†	?†	28†	?†
	Ochtertyre ℌ	74	40	67·7	47·4	56·8	+ 0·1	104	0	5	0·70	−0·01	*	*	*	*
	Leith ℌ	72	48	66·1	51·1	58·1	+ 0·2	113	0	3	0·81	+0·21	*	*	*	*
	Marchmont ℌ	71	44	64·6	48·0	55·7	− 0·5	96	0	2	0·25	−0·50	41·5	?	35	?
2. ENGLAND, N.E.	Alnwick Castle	68	45	62·9	51·9	57·0	+ 0·4	105	0	2	0·07	−0·53	*	*	*	*
	Durham	76	47	65·7	49·5	57·0	− 1·2	105	0	3	0·76	+0·14	34·5	− 1·5	29	− 3
	Shields	71	48	63·1	50·1	56·2	− 1·0	99	0	2	0·67	+0·14	*	*	*	*
	Scarborough ℌ	68	49	63·0	50·9	56·5	− 1·3	102	0	5	0·77	+0·21	*	*	*	*
	York	72	43	65·4	47·9	56·0	− 3·5	98	0	3	0·45	−0·13				
	Spurn Head	63	52	62·3	53·6	57·7	− 1·5	110	0	4	0·50	+0·12	*	*	*	*
3. ENGLAND, E.	Hillington ℌ	69	49	65·8	51·5	58·2	− 2·1	113	0	4	0·91	+0·29	33·0	−10·0	29	− 8
	Yarmouth	68	51	63·3	52·7	57·6	− 2·3	109	0	4	0·64	+0·06	*	*	*	*
	Geldeston	71	50	65·8	51·7	58·2	− 1·5	113	0	4	0·56	+0·03	36·9	−10·0	32	−10
	Cambridge	70	48	66·4	50·9	58·1	− 3·1	113	0	4	1·23	+0·68	33·8	−10·1	30	− 9
	Rothamsted	68	48	64·9	49·9	56·9	− 3·0	104	0	4	0·60	0·00	36·8	?	32	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	69	47	65·9	49·6	57·2	− 2·6	106	0	3	0·18	−0·42	*	*	*	*
	Loughborough	72	48	66·3	52·6	59·0	− 2·2	119	0	4	0·90	+0·40	*	*	*	*
	Stamford (Ketton Hall)	71	47	66·7	50·9	58·3	− 2·9	114	0	4	0·98	?	*	*	*	*
	Cheadle ℌ	65	47	61·1	49·4	54·8	− 2·8	90	0	4	1·96	+1·27	*	*	*	*
	Churchstoke ℌ	70	44	65·6	48·5	56·5	− 1·1	102	0	4	0·40	−0·16	34·7	− 5·1	30	− 5
	Hereford ℌ	74	47	67·3	50·5	58·3	− 1·9	114	0	3	0·33	−0·19	*	*	*	*
	Cirencester	68	45	63·9	49·1	56·0	− 2·9	98	0	4	1·37	−0·74	40·8	− 0·8	36	− 1
	Oxford	70	49	64·7	50·9	57·3	− 3·3	107	0	4	1·03	+0·47	41·4	− 1·1	36	− 2
5. ENGLAND, S.	London	72	50	67·7	52·1	59·4	− 2·8	122	0	4	1·09	+0·57	35·6†	− 3·3†	32†	− 3†
	Strathfield Turgiss ℌ	74	44	67·8	50·1	58·3	− 2·6	114	0	4	0·42	−0·09	*	*	*	*
	Dungeness	68	49	65·1	54·1	59·2	− 1·6	120	0	4	0·60	+0·18	*	*	*	*
	Hastings (St. Leonards)	67	50	64·1	53·0	58·2	− 3·0	113	0	4	0·51	+0·05	40·0	− 9·7	35	− 9
	Southampton	77	50	68·1	52·6	59·8	− 1·8	125	0	3	0·43	−0·11	43·8	− 2·7	39	− 3
	Hurst Castle	67	51	64·0	54·0	58·7	− 2·2	117	0	4	0·41	−0·09	*	*	*	*
	Stowell ℌ	68	49	63·9	50·7	56·8	− 2·4	104	0	4	0·72	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	65	47	61·0	48·9	54·5	− 2·2	88	0	6	0·90	−0·35	*	*	*	*
	Glasgow	67	46	63·2	50·0	56·1	− 1·2	99	0	4	0·46	−0·29	29·1	− 3·9	24	− 4
	Ardrossan	64	50	61·6	51·6	56·3	− 1·4	100	0	3	0·27	−0·36	*	*	*	*
	Glenlee ℌ	65	44	62·8	48·5	55·2	− 1·5	92	0	3	0·49	−0·41	*	*	*	*
	Douglas (Isle of Man)	62	47	59·7	50·4	54·7	− 2·3	89	0	4	0·87	+0·24	30·3	−16·1	26	−14
7. ENGLAND, N.W.	Newton Reigny	69	46	63·2	48·0	55·1	− 2·1	92	0	3	1·74	+1·10	32·0	− 8·0	27	− 7
	Stonyhurst	66	47	61·2	50·4	55·4	− 3·0	94	0	5	1·12	+0·15	26·9	−12·6	23	−11
	Blackpool ℌ	64	50	61·3	52·3	56·5	− 2·4	102	0	3	0·64	−0·01	23·7	−16·9	20	−15
	Manchester	66	47	62·5	50·3	56·0	− 2·4	98	0	5	0·92	+0·10	*	*	*	*
	Liverpool Obsy. (Bidston)	65	50	61·1	52·1	56·3	− 3·4	100	0	3	0·41	−0·19	*	*	*	*
	Llandudno ℌ	64	51	61·6	52·3	56·6	− 3·1	102	0	4	0·68	+0·16	24·9	−13·1	22	−11
	Holyhead	64	51	60·7	52·4	56·3	− 2·4	100	0	4	0·47	−0·03	*	*	*	*
8. ENGLAND, S.W.	Llandovery	71	45	65·7	47·9	56·2	− 2·8	99	0	4	1·87	+1·05	*	*	*	*
	Pembroke	59	51	57·4	52·6	54·8	− 3·8	90	0	4	0·19	−0·33	34·6	−13·4	30	−13
	Arlington (N. Devon)	63	45	60·0	49·3	54·3	− 3·8	86	0	4	0·70	−0·32	*	*	*	*
	Cullompton ℌ	69	42	65·3	49·6	56·9	− 2·8	104	0	3	0·51	−0·13	41·1	− 0·5	36	− 1
	Falmouth	65	49	62·2	52·0	56·7	− 3·0	103	0	4	0·32	−0·36	54·7	+ 4·8	49	+ 6
	Plymouth															
	Prawle Point	65	49	60·9	51·6	55·9	− 2·6	97	0	2	0·23	−0·25	*	*	*	*
9. IRELAND, N.	Malin Head	59	48	57·4	50·4	53·7	− 3·2	82	0	5	0·43	?	*	*	*	*
	Londonderry	62	48	59·9	50·1	54·7	− 3·6	89	0	4	0·90	+0·17	*	*	*	*
	Mullaghmore												*	*	*	*
	Belmullet	63	52	59·0	52·9	55·7	− 1·5	96	0	6	0·66	?	*	*	*	*
	Markree Castle	62	41	58·7	48·7	53·4	− 3·1	80	0	5	0·62	−0·16	9·0	−21·8	8	−18
	Brookeborough	62	44	59·1	48·5	53·4	− 3·4	80	0	4	0·37	−0·05	*	*	*	*
	Armagh	66	45	61·4	48·8	54·7	− 2·7	89	0	4	0·37	−0·28	17·3	−16·4	15	−14
	Donaghadee	64	50	58·9	51·9	55·2	− 1·8	92	0	5	0·57	+0·02	*	*	*	*
	Edgeworthstown	64	45	61·2	49·0	54·7	− 2·7	89	0	2	0·37	−0·41	*	*	*	*
10. IRELAND, S.	Dublin	65	47	61·5	51·1	55·9	− 3·8	97	0	3	0·49	−0·01	18·7	−19·0	16	−16
	Parsonstown	66	49	61·7	51·6	56·3	− 2·1	100	0	2	0·32	−0·32	15·0	−20·0	13	−18
	Kilkenny	69	49	62·4	51·0	56·3	− 2·1	100	0	3	0·48	−0·06	*	*	*	*
	Waterford	67	47	64·6	51·7	57·7	− 1·3	110	0	3	0·19	−0·43	*	*	*	*
	Roche's Point	66	50	61·7	51·9	56·5	− 3·0	102	0	1	0·06	−0·68	*	*	*	*
	Valencia	63	49	61·4	52·6	56·7	− 1·5	103	0	3	0·14	−0·70	29·9	− 8·3	26	− 8
	Killarney	65	41	61·4	48·0	54·2	− 3·7	85	0	5	0·22	?	*	*	*	*
	Foynes	63	49	60·7	52·5	55·9	− 2·4	97	0	4	0·28	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	62	53	60·7	55·1	57·7	− 1·8	110	0	2	0·06	−0·45	*	*	*	*
	Jersey	69	49	64·3	53·0	58·3	− 3·2	114	0	3	0·28	−0·23	49·0	− 3·0	44	− 4

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked ℑ with the Scottish Meteorological Society.

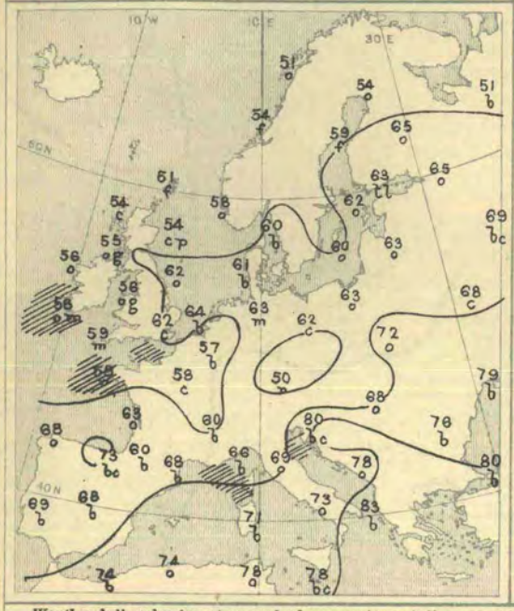
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

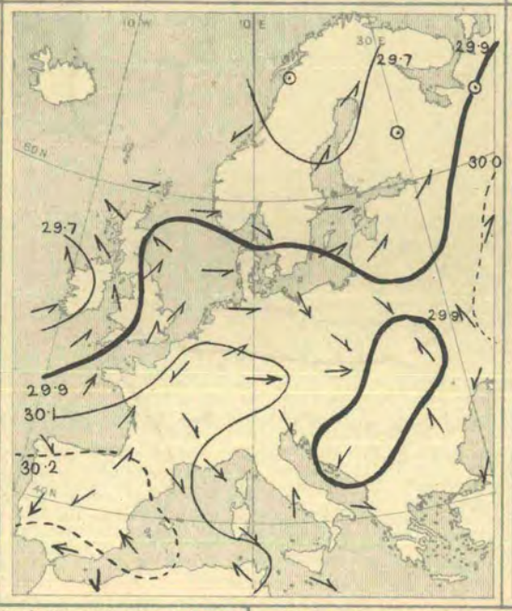
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 5th July.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

Weather dull and rainy at several of our western stations, as well as in the north-west of France and over central Europe; showery in Scotland. Fair or fine in most other parts of Europe, but foggy at some of the Scandinavian stations. Rain extending later to nearly all parts of western and several portions of northern Europe; amounts rather large at some of the English stations, and a very heavy fall at Hermanstadt.

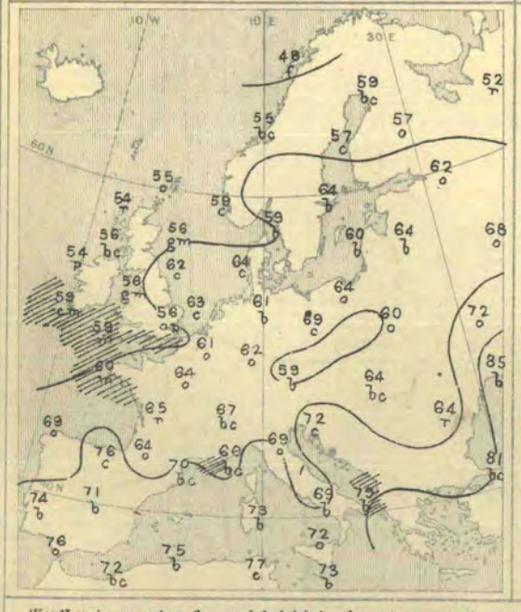
Temperature highest, 83° at Brindisi, 80° at Trieste and Constantinople, 79° at Odessa, and 78° at Lesina; above 70° over nearly the whole of southern and eastern Europe and the Mediterranean. Lowest, 51° at Archangel, Bodö, and Sumburgh Head, and 54° at Christiansund, Stornoway, Aberdeen, and Le Mans; below 60° in all but the eastern parts of the United Kingdom, as well as over Norway and the central parts of France and Germany. Daily maxima very little above 65° in the United Kingdom, but between 70° and 75° at several of the French and German stations, above 90° in several parts of Spain, Austria, and southern Italy.

Wind moderate to fresh from the South-Westward over the Bay of Biscay and the south coasts of our Islands, but light from the South-Eastward in the northern parts of the United Kingdom. Moderate from West in Denmark and the south of Scandinavia, and from North-West at most of the German stations; light from the Southward in Russia, variable in Italy, North-Easterly or Easterly in Spain, Northerly in Algeria. Freshening over the south-east of England later, but moderating in the south of France.

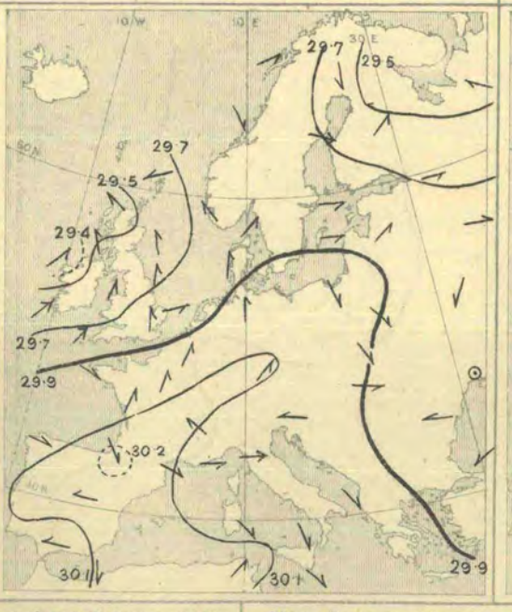
Barometer highest, 30·2 ins. and upwards to 30·1 ins. in an anticyclone lying over Spain and stretching north-eastwards over France; 30·1 ins. and more in another system lying over Russia. Lowest, 29·7 ins. and less in a well-marked depression over the west of Ireland, and also in a shallow disturbance over the northern parts of Scandinavia; 29·9 ins. and less in another shallow system over Austria. Irish depression subsequently moving slowly north-eastwards and barometer beginning to rise on our south-west coasts.

Monday, 6th July.

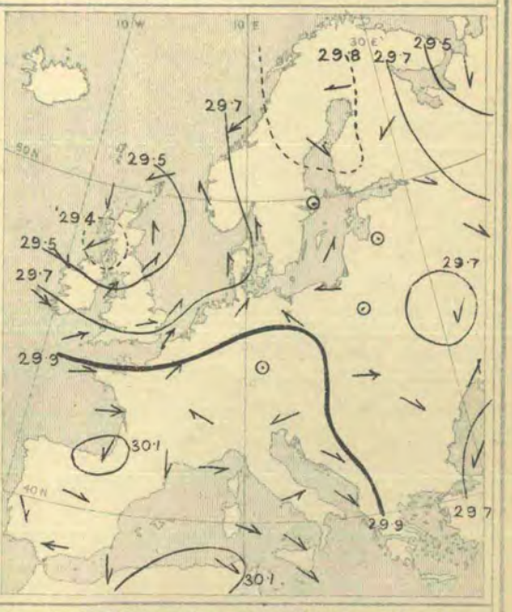
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright in the extreme south and south-east of Europe and the Mediterranean only; very unsettled, cloudy and showery in the north and north-west; rain falling later over nearly the whole of north-western and western Europe, heavily in the north-east of Scotland; thunderstorms occurring in several parts of England.

Temperature low and inclined to fall over the northern and north-western countries, high in the south-east. Morning readings 84° at Odessa, 81° at Constantinople, 80° at Nicolaieff; exceeding 70° at most of the Spanish and Mediterranean stations, as well as at Kiev and Kharkov, lower elsewhere. Below 60° in all parts of the United Kingdom, Finland and the north of Russia, and as low as 48° at Bodö, 52° at Archangel, 54° at Stornoway and Belmullet. Rising to 70° and more at a few English stations later, in Sweden and in Germany, to between 78° and 86° in the south of France, and to 90° and more in Spain.

Wind, (1) strong and squally from the South-Westward on our south-western and southern coasts, moderate Southerly to South-Easterly at our Northern stations; (2) Northerly to Westerly over Sweden, South-Westerly over Finland; (3) chiefly Northerly to Westerly over central Europe, very variable elsewhere. Veering Westwards over Ireland, England, and France later, but backing to North-East in the north of Scotland, and falling light at the Swedish stations.

Barometer highest, 30·2 ins. to 30·0 ins. over Algeria, Spain, France, Switzerland, and south Germany, and exceeding 29·9 ins. over north Germany and the extreme south of Sweden. Lowest, 29·4 ins. and less in a new depression advancing towards the north-west of Ireland from the Atlantic; 29·5 ins. and less in a larger one over the White Sea and North of Russia; and rather below 30·0 ins. in a shallow system over the Gulf of Genoa. Depression in north-west advancing north-eastwards later, and barometer falling throughout our Islands.

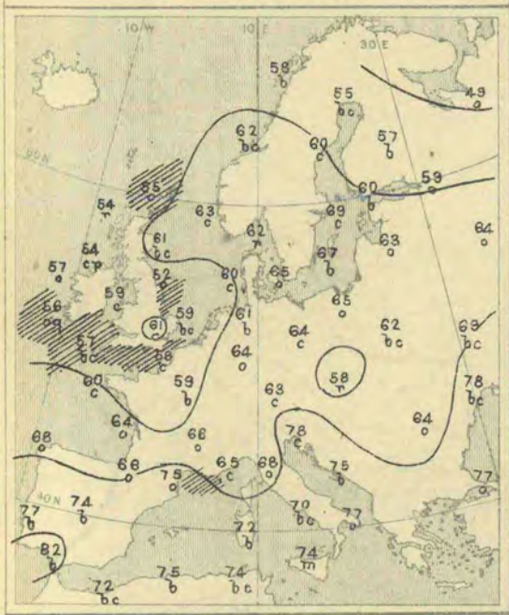
Judd & Co Lts Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 7th July.

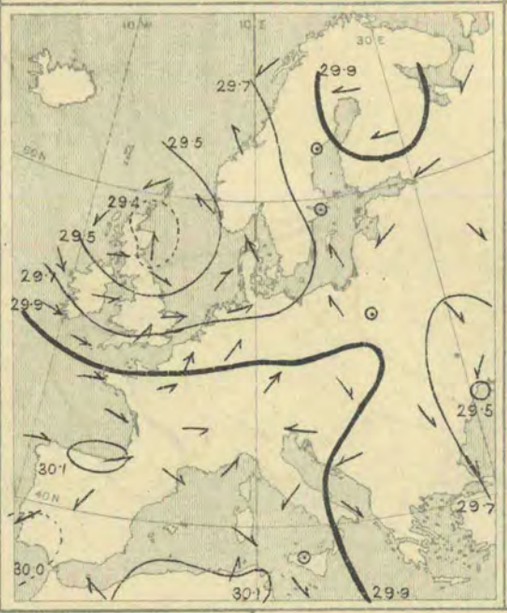
Temperature and Weather.

8 a.m.

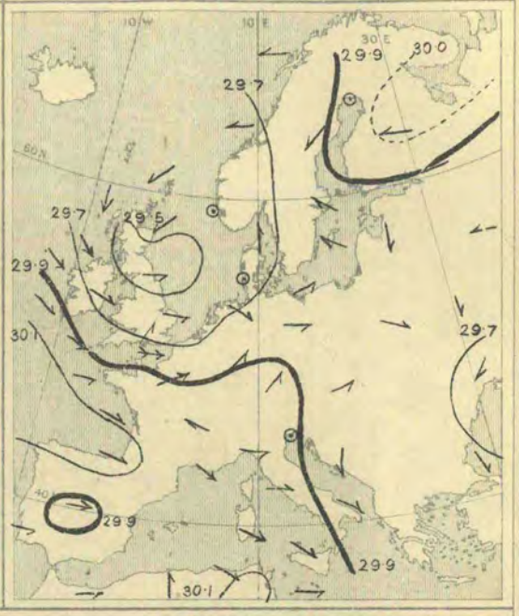


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright at most of the Mediterranean stations, and over south-eastern and south-western Europe; cloudy, more or less, elsewhere; very unsettled over western and northern Europe, with rain in many places. Rain at times during day in almost all parts of our Islands, Germany, and the greater part of north-western Europe, thunderstorms in the north of England and north-west of France. Rainfall heavy in some localities.

Temperature highest, 82° at Nicolaieff, and exceeding 70° on all the eastern, southern, and western shores of the Mediterranean. Low for the time of year over all the western and northern countries; below 60° over nearly the whole of the British Isles and northern Europe, and as low as 48° at Uleaborg, 49° at Archangel, 53° at Wick, Nairn, York, Cape Gris Nez, and Le Mans, 54° at Malin Head and Liverpool. Rising later to between 60° and 65° only in most parts of our Islands, with the north and west of France, to a little above 70° in Germany, and lower than of late even over Italy and Austria. High, 90° and more, in Spain and Algeria.

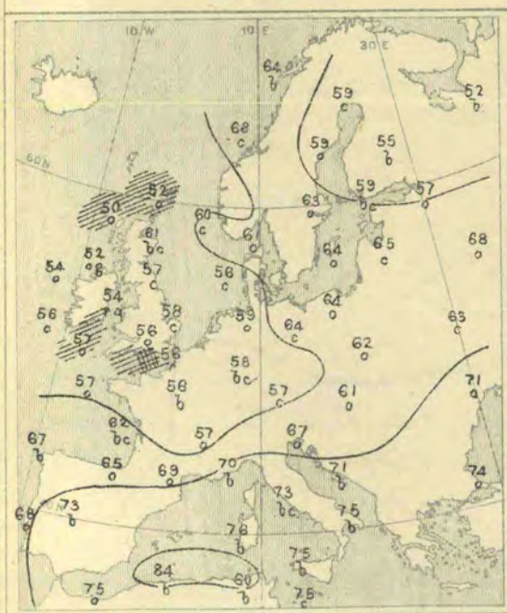
Wind light and variable in Scotland, fresh to strong North-Westerly in Ireland, and strong Westerly in the Irish and English Channels; moderate over the Bay of Biscay. Moderate to fresh South-Westerly to Southerly over Germany, moderate South-Easterly in Denmark and the southern parts of Scandinavia; very light and variable elsewhere. Blowing a fresh gale in the English Channel later, and freshening in the south-east of England generally.

Barometer highest, 30·1 ins. and more to 29·9 ins. over Algeria, the Mediterranean, and south-western and southern Europe; 29·9 ins. and more to 29·8 ins. over Lapland, the Kola Peninsula, Finland, and the north of Sweden. Lowest, 29·4 ins. and less in a depression over the east of Scotland and neighbouring parts of the North Sea, 29·5 ins. and less in another over the south of Russia, and 30·0 ins. and less in a third approaching the south-west of Spain from the Atlantic. The first of these depressions beginning to move south-eastwards later.

Wednesday, 8th July.

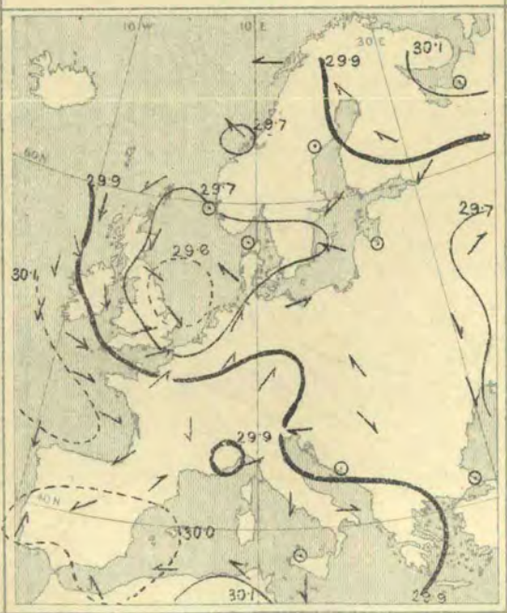
Temperature and Weather.

8 a.m.

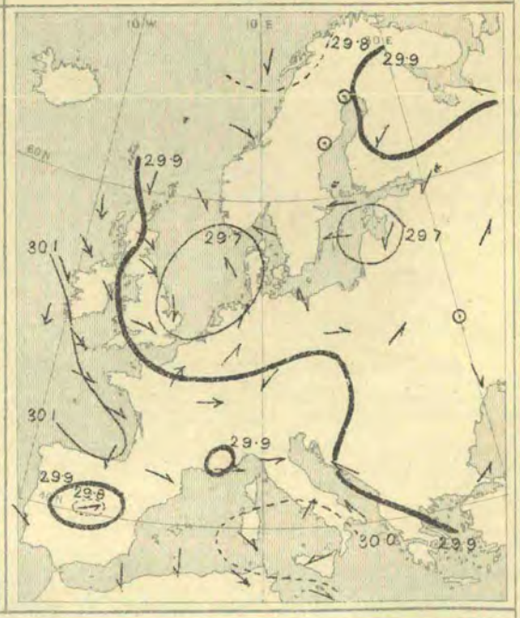


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright at the Mediterranean stations, in Spain and several parts of France, as well as in the extreme north of Europe, very unsettled elsewhere, especially over Great Britain, the Netherlands and Germany, where rain fell in several places. Rain later in the regions referred to—heavy in many localities, thunderstorms and hail over England.

Temperature still low for the time of year. Mornings readings exceeding 70° in the extreme south-east, south, and south-west only—exceeding 80° at some Algerian stations. Below 60° in all parts of the British Islands and north of Russia, and as low as 50° at Stornoway, 51° at Wick, 52° at Donaghadee, Sumburgh Head, and Archangel, and 54° at Holyhead, 55° at Parsonstown and Brussels. Not touching 70° at any of our Stations during day, and not touching 60° on our north-east coast, but rising to 82° at Perpignan and 86° at Nice.

Wind Easterly and South-Easterly, light, over northern Europe; Northerly, moderate to strong, in Scotland and Ireland; North-Westerly over England, Westerly in the North of France, Southerly in the Netherlands; chiefly Northerly to North-Easterly at the Spanish stations, very variable over central and eastern Europe. Veering Northwards over England later and becoming strong from South-West over central France, and in some parts of western Germany.

Barometer highest, 30·0 and more over the west of Ireland, the Bay of Biscay, the south-west of France, and north of Spain, and 30·1 ins. to 29·9 ins. over Finland, the White Sea, and Lapland. Lowest, 29·6 ins. and less in a depression moving South-Eastwards over the North Sea, 29·7 ins. and less in a shallow disturbance over the central and southern parts of Russia, and 29·9 ins. and less in a very small system lying over the Riviera and Gulf of Genoa. Depression over the North Sea moving eastwards later and filling up; a new one forming over the Baltic.

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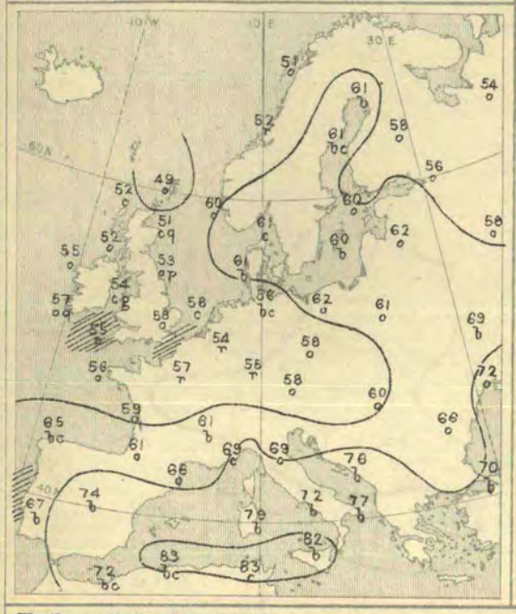
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 9th July.

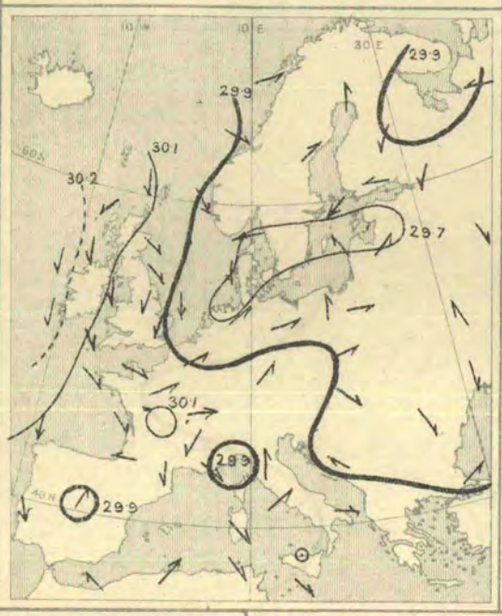
Temperature and Weather.

8 a.m.

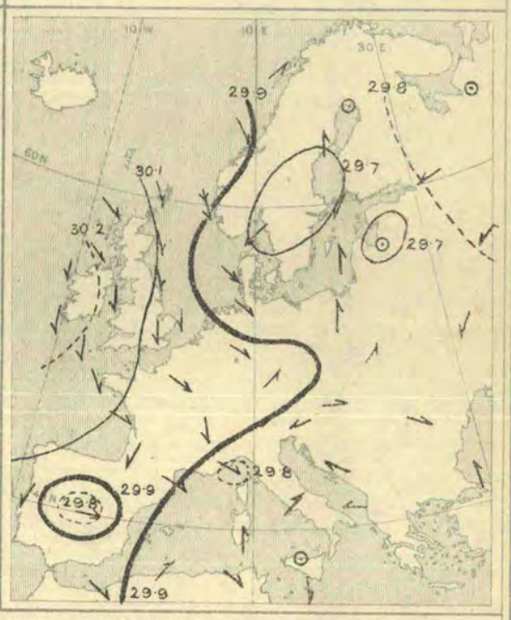


Barometer and Wind.

8 a.m.



6 p.m.



Weather continuing fine and bright over the Mediterranean, and south-eastern and south-western Europe, and improving over the western parts of the United Kingdom; cloudy or overcast elsewhere—showery and unsettled over our eastern districts and the North Sea, as well as in Belgium and the north of France. Rain later over the Netherlands and central Europe, and recommencing in the extreme north of our Islands and Scandinavia; conditions improving over England.

Temperature still low for time of year over north-western, western, and central Europe. Exceeding 80° at some Algerian stations and at Palermo, and 70° in many parts of the most southern countries; lower elsewhere. Below 60° over the greater part of the British Islands, France, and western Germany, and as low as 48° at Wick, 49° at Sumburgh Head, 51° at Bodö and Nairn, 52° at Limoges, Malin Head, Stornoway, and Christiansund. Not touching 70° in any part of our Islands later, but exceeding that value in the south-west and south of France, exceeding 80° at Nice and Lisbon; touching 90° in some parts of Italy, and exceeding 100° at La Calle (Algeria).

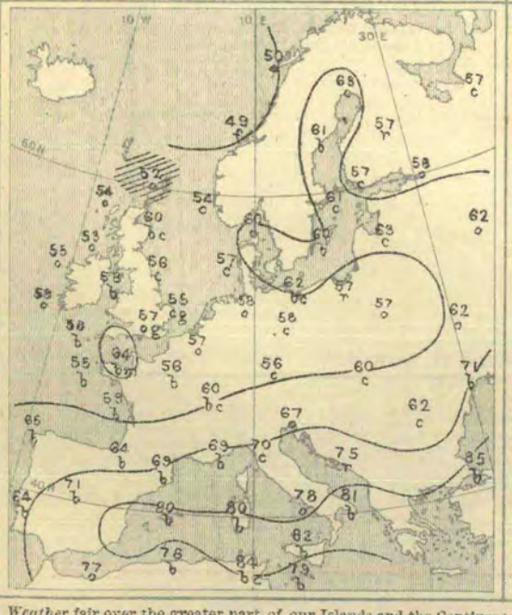
Wind Northerly over the British Islands and North Sea, and blowing freshly over our eastern counties; South-Westerly to Southerly over Holland and Germany; very variable elsewhere. Freshening from North-West on the eastern shores of the North Sea later, and veering to North-Westward over Holland and western Germany. Becoming lighter in our Islands, but remaining Northerly.

Barometer highest, 30·2 ins. to 30·0 ins. and more over the western parts of our Islands and France, and the neighbouring parts of the Atlantic; exceeding 29·9 ins. over northern Russia. Lowest, 29·7 ins. and less in a complex depression over Holstein, Denmark, the south of Sweden, and the Baltic Provinces, and in another over the south-east of Russia; 29·8 ins. and less in another lying partly over Finmark; and 29·9 ins. and less in two others—one over the Gulf of Genoa, the other over central Spain. Baltic depression altering in form later; barometer rising throughout the British Islands.

Friday, 10th July.

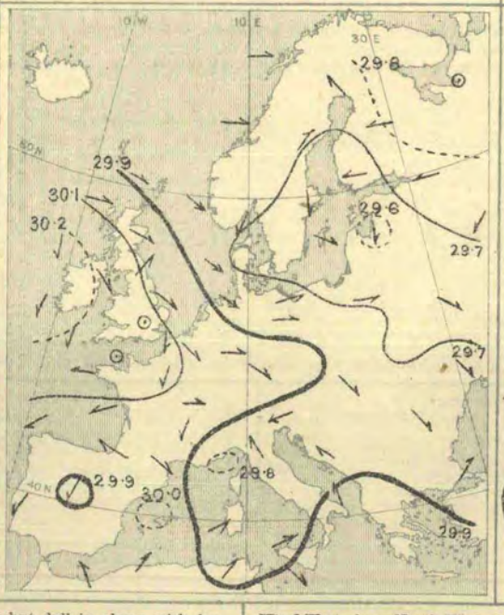
Temperature and Weather.

8 a.m.

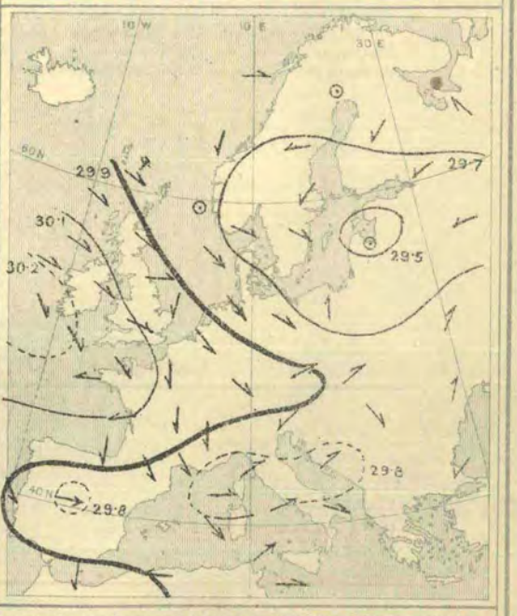


Barometer and Wind.

8 a.m.



6 p.m.



Weather fair over the greater part of our Islands and the Continent, but dull in places, with fog at Christiansund and rain at Kuopio, as well as at Lesina. A little rain falling later in the extreme north and north-west of our Islands, and also in several parts of France and Germany; a heavy fall at Riga and 0·2 in. at St. Petersburg. Sky clearing over nearly the whole of England.

Temperature highest, 85° at Constantinople; 84° at La Calle, 82° at Palermo, 81° at Brindisi, and 80° at Barcelona, Palma, and Cagliari; above 75° at most of the Italian and Mediterranean stations. Lowest, 49° at Christiansund, 50° at Bodö, 52° at Sumburgh Head, and 53° at Malin Head; below 60° in nearly all parts of the United Kingdom and central and northern Europe. Rising later to 70° or a little more at several of the English, Scotch, and French stations, and reaching 80° at Corunna, 90° and more in the south of Italy (102° at Palermo), and 104° at Biskra and Laghouat.

Wind Westerly or North-Westerly over the northern and eastern parts of our Islands, with the North Sea, Denmark, Germany, and the Netherlands; light or moderate in force generally, but strong in Denmark and the south of Norway. Light from the Eastward or North-Eastward in France, and also over the northern and central parts of Russia; Northerly in the south of Russia. Chiefly Southerly in Italy and Algeria. Very little change occurring during day.

Barometer highest, 30·1 ins. to 30·2 ins. and upwards in an anticyclone extending from the Atlantic over our Islands and the north of France, and exceeding 29·8 ins. over the north of Russia. Lowest, 29·7 ins. and less in a large shallow depression of irregular form extending south-westwards from Sweden to the south of Russia (centre near Riga), and 29·8 ins. and less in an elongated area stretching across the central parts of Italy and the Adriatic. Slight fall of barometer taking place over western Europe during day and a rise over the south of Russia, but no important change occurring in general distribution of pressure.

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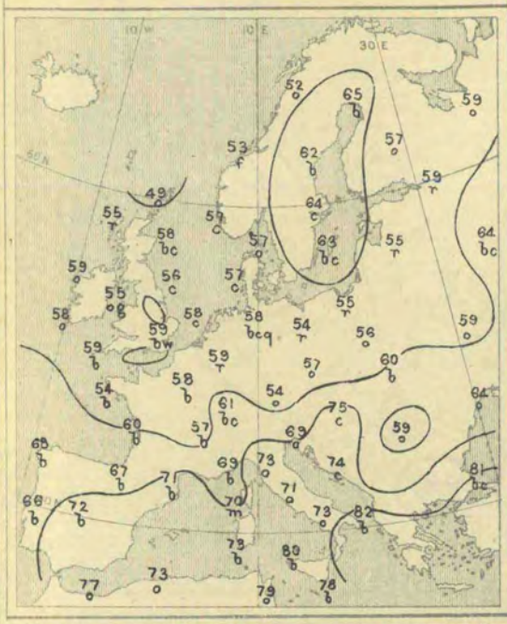
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 11th July.

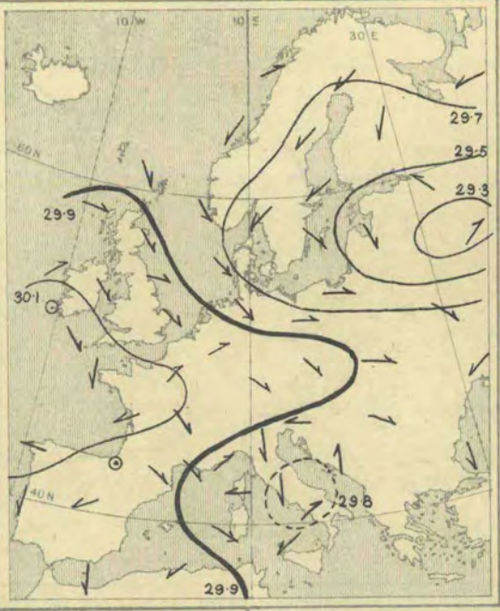
Temperature and Weather.

8 a.m.

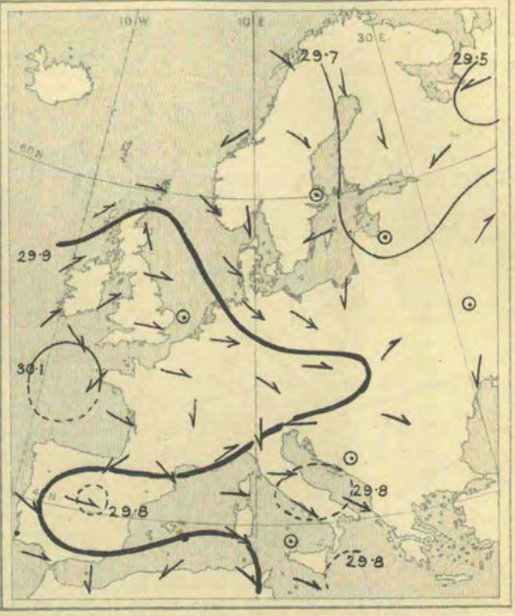


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over Spain, France and the south-west of England; cloudy or overcast in almost all other regions, with rain at several stations in the west and north-west of our Islands, on the eastern and southern shores of the Baltic, and at Leghorn. Rain later at several of the Baltic and German stations, as well as on the shores of the Adriatic, but only a trace in our Islands (in the extreme north-west).

Temperature not changing much except over South-Eastern Europe, where a fall was reported; inclined to rise in England. Morning readings exceeding 70° at the Mediterranean stations generally, and exceeding 80° at Palermo, Brindisi and Constantinople; much lower elsewhere. Below 60° over the greater part of our Islands and northern Europe, and as low as 49° at Sumburgh Head, 52° at Bodö, and 55° on our extreme north-western coasts. Rising later to 72° in London, to upwards of 80° in the south of France, to 88° in the south of Italy, and to 90° and more in some parts of Spain and Algeria.

Wind (1) Northerly to North-Easterly over northern Europe. North-Westerly over the British Islands and North Sea, Westerly over north Germany; (2) Northerly to North-Easterly in the north of Italy, North-Westerly in Sardinia, Westerly and South-Westerly in south Italy; (3) North-Easterly over the Bay of Biscay and Iberian Peninsula, as well as in the south of Russia. Backing to South-West in the north-west of our Islands later, and falling very light to the Eastward of the North Sea.

Barometer highest, 30·1 ins. and more to 30·0 ins. over the Bay of Biscay, France, the north of Spain, and greater part of the United Kingdom. Lowest, 29·3 ins. and less in a well-marked depression over central Russia, and 29·8 ins. and less in shallower ones over the Black Sea and Italy. Russian system filling up rapidly later; small disturbance forming over Spain, and barometer falling slowly on our coasts.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 158.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH - - - - - - - -	29·9	?	25	?	EASTBOURNE - - - - - - - -	37·8	?	33	?
OSWALDKIRK (Yorkshire) - - -	24·3	?	21	?	TORQUAY - - - - - - - -	45·6 *	?	41 *	?
WORKSOP - - - - - - - - -	34·6	− 0·5	30	− 1	ARLEY COTTAGE (County Cavan) -	15·9	?	14	?
THURCASTON (Leicestershire) - - -	41·1	+ 4·3	36	+ 4					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 28.] *Third Series.* WEEK ENDING SATURDAY, 18TH JULY, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881–90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 164.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	73	40	64·6	50·7	57·2	2 above.	106	+27	0	0	944*	+131	621	+ 79
	1. SCOTLAND, EAST -	76	44	66·8	52·0	58·9	2 above.	118	+17	0	0	1052	− 37	670	+101
	2. ENGLAND, N.E. - -	78	46	66·2	53·3	59·3	1 above.	121	+ 8	0	0	1032	− 88	593	+ 95
	3. ENGLAND, EAST -	82	44	69·7	53·0	60·8	0 (average)	132	+ 6	0	0	1266	− 74	689	+128
	4. MIDLAND COUNTIES	81	41	71·5	51·3	60·7	1 above.	131	+10	0	0	1300	− 52	668	+116
	5. ENGLAND, SOUTH -	81	44	71·1	53·0	61·4	0 (average)	136	+ 6	0	0	1380	− 75	565	+149
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	74	42	67·6	52·1	59·3	2 above.	121	+19	0	0	1196	+ 75	463	+ 46
	7. ENGLAND, N.W. -	79	47	68·2	53·5	60·4	2 above.	129	+16	0	0	1214	+ 19	449	+ 35
	8. ENGLAND, S.W. -	78	43	68·2	51·9	59·7	1 above.	124	+ 6	0	0	1317	− 43	434	+118
	9. IRELAND, NORTH -	76	46	67·7	52·7	59·7	2 above.	124	+21	0	0	1255	+ 26	390	+ 28
	10. IRELAND, SOUTH -	74	44	68·7	52·3	59·9	1 above.	125	+12	0	0	1438	+ 25	309	+ 31
	— CHANNEL ISLANDS -	78	47	67·7	56·2	61·6	1 above.	137	+11	0	0	1497	− 3	162	+ 40

Rainfall.

	DISTRICTS. (See p. 164.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	4	7	2 less.	119	− 8	23·2*	− 0·2
	1. SCOTLAND, EAST -	5	9	2 more.	83	−20	11·2	− 4·2
	2. ENGLAND, N.E. - -	3	6	0 (average)	84	−11	9·2	− 3·2
	3. ENGLAND, EAST -	2	3	3 less.	90	− 3	10·4	− 2·1
	4. MIDLAND COUNTIES-	2	1	5 less.	86	− 6	12·1	− 2·1
	5. ENGLAND, SOUTH -	1	1	5 less.	81	− 9	11·4	− 2·1
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	4	4	5 less.	91	−18	15·2	− 8·9
	7. ENGLAND, N.W. - -	2	1	7 less.	80	−19	11·5	− 4·4
	8. ENGLAND, S.W. - -	2	3	4 less.	86	−16	15·0	− 4·1
	9. IRELAND, NORTH -	3	4	3 less.	102	−15	12·5	− 5·0
	10. IRELAND, SOUTH -	2	6	1 less.	92	−16	14·7	− 4·9
	— CHANNEL ISLANDS -	2	3	3 less.	89	−21	12·8	− 2·7

Bright Sunshine.

	DISTRICTS. (See p. 164.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	36	+11	30	+ 9	792	+ 62	31	+ 2
	1. SCOTLAND, EAST -	29	− 5	24	− 6	825	− 2	32	− 1
	2. ENGLAND, N.E. - -	23	−21	21	−13	771	+ 22	30	0
	3. ENGLAND, EAST -	32	−13	29	−11	832	− 67	33	− 3
	4. MIDLAND COUNTIES-	44	+ 4	40	+ 5	813	+ 18	32	0
	5. ENGLAND, SOUTH -	51	+ 9	47	+ 6	931	+ 77	37	+ 3
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	51	+12	44	+11	866	+ 53	34	+ 2
	7. ENGLAND, N.W. - -	43	+ 5	37	+ 3	810	+ 5	32	0
	8. ENGLAND, S.W. - -	67	+22	61	+20	990	+ 49	39	+ 2
	9. IRELAND, NORTH -	57	+27	50	+24	844	+ 80	33	+ 3
	10. IRELAND, SOUTH -	53	+17	47	+16	908	+ 36	36	+ 1
	— CHANNEL ISLANDS -	66	+14	61	+13	1212	+124	48	+ 4

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather remained fair and dry generally until towards the end of the week, when it became showery and unsettled, with local thunderstorms.

Temperature has just equalled the mean in "England E." and "S.," but in all other districts it has been 1° or 2° above. The highest of the maxima were registered on the 17th, when the thermometer rose to between 79° and 82° over the greater part of England, and to between 73° and 78° in the western and northern parts of the Kingdom. The lowest of the minima, which were recorded on rather irregular dates, ranged from 40° in "Scotland N." and 41° in the "Midland Counties," to 47° in "England N.W." and the "Channel Islands."

Rainfall has been a little more than the mean in "Scotland E." and equal to it in "England N.E.;" in nearly all other districts, however, a decided deficit is shown.

Bright Sunshine has exceeded the mean in all except the eastern and north-eastern parts of the Kingdom. The percentage of the possible amount of duration ranged from 61 in "England S.W." and the "Channel Islands," and from 50 in "Ireland N.," to 21 in "England N.E."

Barometer and Wind.—During the earlier part of the period the distribution of pressure was anticyclonic over the southern districts and cyclonic in the north. Later in the week the barometer rose briskly and became highest in the north, while the winds over our Islands shifted to the North-Eastward. On the 16th a depression moving North-Westwards over the North Sea caused a brisk fall of the barometer over the United Kingdom, and the wind to back to the North-Westward or Westward, but by the end of the period depressions were advancing towards our western coasts from the Atlantic, and the wind had shifted to the Southward or South-Westward on all our coasts.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 163 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	66	46	62·0	52·0	56·7	+ 4·2	103	0	1	0·01	−0·50	*	*	*	*
	Stornoway	70	41	62·7	48·9	55·3	+ 1·0	93	0	5	0·14	−0·54	43·6	+10·2	36	+ 9
	Wick	68	46	63·9	50·7	56·8	+ 1·9	104	0	3	0·72	+0·21	*	*	*	*
	Lairg Ⓢ	73	40	66·6	49·1	57·2	+ 2·0	106	0	5	0·77	+0·10	*	*	*	*
	Glencarron Ⓢ	71	46	65·6	49·6	57·0	+ 2·7	105	0	4	1·26	−0·12	*	*	*	*
	Fort Augustus Ⓢ	71	47	64·6	53·0	58·4	+ 1·9	115	0	4	? 0·60	?−0·11	23·7	?	20	?
	Fort William Ⓢ	73	46	66·9	51·9	58·9	+ 2·3	118	0	5	1·13	−0·07	41·9	?	35	?
1. SCOTLAND, E.	Nairn	72	45	65·7	50·7	57·7	+ 0·5	110	0	5	0·97	+0·39	*	*	*	*
	Aberdeen	69	49	65·0	53·0	58·6	+ 1·8	116	0	4	1·03	+0·41	31·7	− 7·2	27	− 6
	Braemar Ⓢ	70	45	66·0	50·9	57·9	+ 3·4	111	0	6	0·96	+0·31	33·7†	? †	28†	?†
	Ochtertyre Ⓢ	76	44	71·0	50·6	60·1	+ 3·1	127	0	6	0·86	+0·11	*	*	*	*
	Leith	76	52	68·0	54·6	60·8	+ 2·2	132	0	4	0·49	−0·15	*	*	*	*
	Marchmont Ⓢ	71	50	64·9	52·4	58·2	+ 1·5	113	0	5	0·84	+0·05	20·0	?	17	?
2. ENGLAND, N.E.	Alnwick Castle	71	48	64·7	53·0	58·4	+ 1·0	115	0	4	0·90	+0·25	*	*	*	*
	Durham	77	48	68·1	52·9	60·0	+ 1·1	126	0	4	1·00	+0·32	21·7	−15·0	19	−13
	Shields	72	51	65·0	53·9	59·1	+ 1·4	120	0	4	0·76	+0·16	*	*	*	*
	Scarborough ℳ	75	49	66·0	54·8	60·0	+ 1·1	126	0	3	0·33	−0·30	*	*	*	*
	York	78	46	69·3	51·0	59·5	− 0·1	123	0	2	0·24	−0·36	?	?	?	?
	Spurn Head	69	53	63·9	54·0	58·6	− 1·1	116	0	1	0·08	−0·31	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	82	44	69·8	52·5	60·6	0·0	130	0	3	0·14	−0·54	31·6	−11·9	28	−10
	Yarmouth	71	54	66·0	55·7	60·5	− 0·1	130	0	2	0·37	−0·27	*	*	*	*
	Geldeston	78	48	69·8	52·9	60·8	+ 0·3	132	0	2	0·32	−0·27	35·4	−11·4	32	−10
	Cambridge	82	52	72·4	53·4	62·2	+ 0·6	141	0	4	0·58	+0·03	28·6	−15·4	26	−13
	Rothamsted	79	45	70·6	50·6	59·9	− 0·4	125	0	1	0·02	−0·60	33·6	?	30	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	79	45	71·4	49·9	59·9	− 0·4	125	0	3	0·14	−0·47	*	*	*	*
	Loughborough	81	48	73·4	52·6	62·3	+ 0·8	142	0	1	0·02	−0·50	*	*	*	*
	Stamford (Ketton Hall)	80	41	72·6	50·6	60·8	− 0·6	132	0	1	0·10	?	*	*	*	*
	Cheadle ℳ	75	51	69·2	53·2	60·6	+ 3·0	130	0	1	0·02	−0·68	*	*	*	*
	Churchstoke ℳ	76	43	71·0	49·6	59·6	+ 1·7	123	0	2	0·10	−0·50	52 6	+13·1	47	+12
	Hereford ℳ	77	47	73·3	51·7	61·8	+ 1·5	139	0	3	0·11	−0·44	*	*	*	*
	Cirencester	75	48	69·9	51·0	59·8	− 0·5	125	0	1	0·02	−0·67	49·3	+ 8·0	44	+ 7
	Oxford	77	47	71·4	51·7	60·9	0·0	132	0	1	0·03	−0·56	42·5	− 0·3	38	0
5. ENGLAND, S.	London	81	48	73·0	53·6	62 6	+ 0·3	142	0	1	0·02	−0·51	32·0†	− 7·5†	29†	− 7†
	Strathfield Turgiss ℳ	81	44	75·5	49·6	61·6	+ 0·2	137	0	0	—	−0·53	*	*	*	*
	Dungeness	70	50	66·9	55·4	60·8	− 0·5	132	0	1	0·10	−0·34	*	*	*	*
	Hastings (St. Leonards)	70	52	67·5	54·8	60·7	− 0·8	131	0	2	0·15	−0·35	56·7	+ 6·6	52	+ 7
	Southampton	76	50	74·4	53·5	63·2	+ 1·3	148	0	1	0·02	−0·57	66·1	+19·5	60	+18
	Hurst Castle	72	50	70·1	54·3	61·7	+ 0·2	138	0	0	—	−0·51	*	*	*	*
	Stowell ℳ	74	44	70·3	50·1	59·5	+ 0·1	123	0	2	0·06	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	72	50	67·8	52·3	59·5	+ 2·6	123	0	6	0·76	−0·49	*	*	*	*
	Glasgow	73	50	68·7	54·2	61·0	+ 3·7	133	0	3	0·48	−0·32	44·8	+14·0	38	+12
	Ardrossan	73	48	66·0	53·4	59·3	+ 1·5	121	0	4	0·26	−0·39	*	*	*	*
	Glenlee Ⓢ	74	42	68·7	50·2	58·8	+ 2·1	118	0	4	0·16	−0·81	*	*	*	*
	Douglas (Isle of Man)	72	47	66·9	50·4	58·1	+ 0·9	113	0	2	0·22	−0·47	57·4	+12·8	50	+11
7. ENGLAND, N.W.	Newton Reigny	73	47	67·6	50·1	58·2	+ 1·0	113	0	4	0·19	−0·50	38·8	+ 0·5	33	0
	Stonyhurst	75	50	69·5	53·2	60·8	+ 2·3	132	0	3	0·04	−0·98	33·4	− 4·4	29	− 4
	Blackpool ℳ	79	51	69·6	54·4	61·5	+ 2·1	137	0	1	0·07	−0·64	?	?	?	?
	Manchester	77	52	69·3	54·1	61·2	+ 2·7	134	0	2	0·07	−0·81	*	*	*	*
	Liverpool Obsy. (Bidston)	77	53	69·6	55·0	61·8	+ 2·0	139	0	1	0·01	−0·66	*	*	*	*
	Llandudno ℳ	73	51	67·3	53·7	60·0	+ 0·1	126	0	1	0·06	−0·54	55·9	+18·8	49	+16
	Holyhead	70	53	64·9	54·3	59·2	+ 0·4	120	0	2	0·08	−0·45	*	*	*	*
8. ENGLAND, S.W.	Llandovery	78	44	73·4	49·3	61·5	+ 2·4	137	0	2	0·26	−0·63	*	*	*	*
	Pembroke	68	51	64·0	54·1	58·7	+ 0·3	117	0	2	0·39	−0·17	56·5	+10·7	50	+ 9
	Arlington (N. Devon)	72	49	68·0	50·9	58·9	+ 0·6	118	0	2	0·47	−0·62	*	*	*	*
	Cullompton ℳ	73	43	70·7	49·4	59·3	− 0·3	121	0	2	0·26	−0·41	59·4	+19·2	54	+18
	Falmouth	68	48	66·5	54·0	59·8	0·0	125	0	2	0·21	−0·51	83·1	+35·1	76	+33
	Plymouth															
	Prawle Point	71	48	66·6	53·7	59·7	+ 0·9	124	0	2	0·.3	−0·28	*	*	*	*
9. IRELAND, N.	Malin Head	68	51	61·7	55·4	58·3	+ 1·1	114	0	3	0·23	?	*	*	*	*
	Londonderry	76	46	71·5	52·0	61·1	+ 2·8	134	0	4	0·5s	−0·21	*	*	*	*
	Mullaghmore	69	52	65·7	54·1	59·5	+ 1·3	123	0	3	0·83	−0·02	*	*	*	*
	Belmullet	73	53	66·9	54·4	60·2	+ 2·7	127	0	3	0·19	?	*	*	*	*
	Markree Castle	73	46	68·6	49·6	58·4	+ 1·8	115	0	3	0·62	−0·13	53·6	+24·6	47	+21
	Brookeborough	76	47	69·8	50·3	59·4	+ 2·5	122	0	3	0·32	−0·48	*	*	*	*
	Armagh	73	49	69·2	51·8	59·9	+ 2·3	125	0	2	0·31	−0·39	62·1	+30·7	54	+27
	Donaghadee	70	54	66·1	55·7	60·5	+ 3·3	130	0	2	0·10	−0·52	*	*	*	*
	Edgeworthstown	74	49	69·6	51·3	59·8	+ 2·4	125	0	2	0·34	−0·48	*	*	*	*
10. IRELAND, S.	Dublin	73	53	68·4	55·6	61·2	+ 1·5	134	0	2	0·21	−0·32	59·2	+23·0	52	+20
	Parsonstown	74	47	70·3	51·3	60·1	+ 1·7	127	0	3	0·20	−0·48	53·9	+20·7	48	+19
	Kilkenny	74	46	69·9	50·9	59·7	+ 1·3	124	0	2	0·48	−0·10	*	*	*	*
	Waterford	74	44	70·8	50·7	60·1	+ 0·8	127	0	2	1·48	+0·81	*	*	*	*
	Roche's Point	68	52	65·0	54·7	59·5	0·0	123	0	2	0·80	+0·06	*	*	*	*
	Valencia	72	51	66·6	52·9	59·3	+ 0·8	121	0	2	0·86	−0·02	46·2	+10·2	41	+ 9
	Killarney	73	46	68·4	50·2	59·7	+ 0·5	117	0	2	0·80	?	*	*	*	*
	Foynes	74	49	70·2	52·8	60·9	+ 2·4	132	0	2	0·12	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	69	56	65·7	57·1	61·1	+ 1·2	134	0	2	0·17	−0·38	*	*	*	*
	Jersey	78	47	69·7	55·3	62·0	+ 0·1	140	0	2	0·39	−0·13	66·4	+14·3	61	+13

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

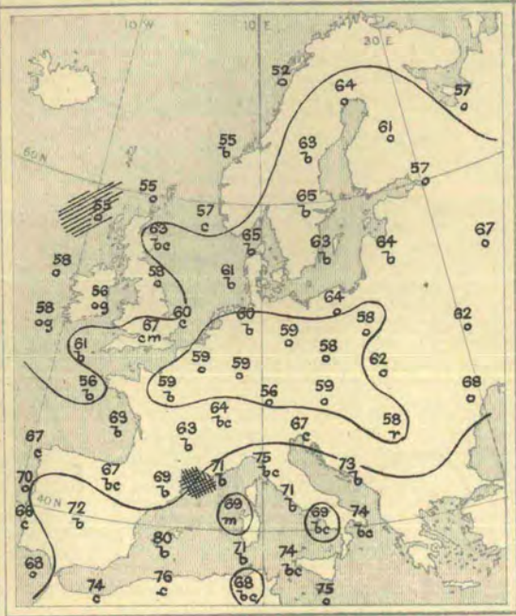
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Stowell are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 12th July.

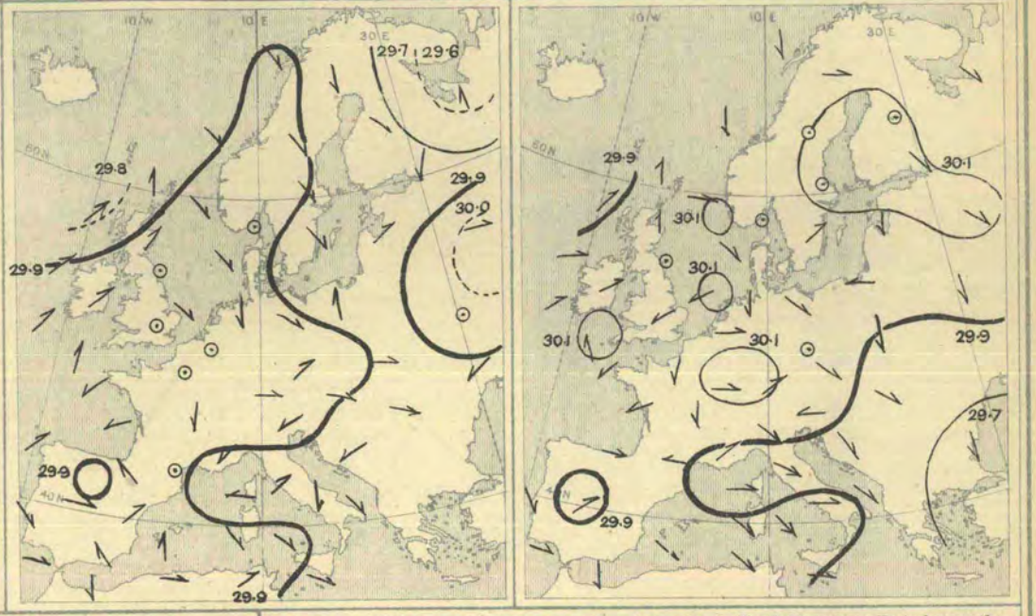
Temperature and Weather. 8 a.m.



Weather in morning fine and bright over France and the Mediterranean, as well as some parts of south-eastern Europe and in Denmark; cloudy or overcast in most other places, and unsettled on our north-western coasts, as well as over northern Europe and in Hungary. Slight rain at our north-western and northern stations later and in south Germany, but fine weather experienced over France, England, and the North Sea. Thunderstorms occurring in some parts of north Germany.

Temperature risen a little over the North Sea, Germany, and Austria. Morning readings highest (70° and more) at most of the Mediterranean stations, and above 60° over southern and eastern Europe generally, as well as in several localities further north. Below 60° over the greater part of our Islands and on the Norwegian coast, and as low as 52° at Bodö, 55° at Christiansund, Sumburgh Head, and Stornoway, 56° at York and Loughborough, 57° at Cracow. Rising to 70° at very few of our own stations later, but to 83° at Biarritz and to 84° at Rochefort. Exceeding 85° in many parts of Algeria and southern Europe, the highest reading of all being 111° at Biskra.

Barometer and Wind. 8 a.m. and 6 p.m.

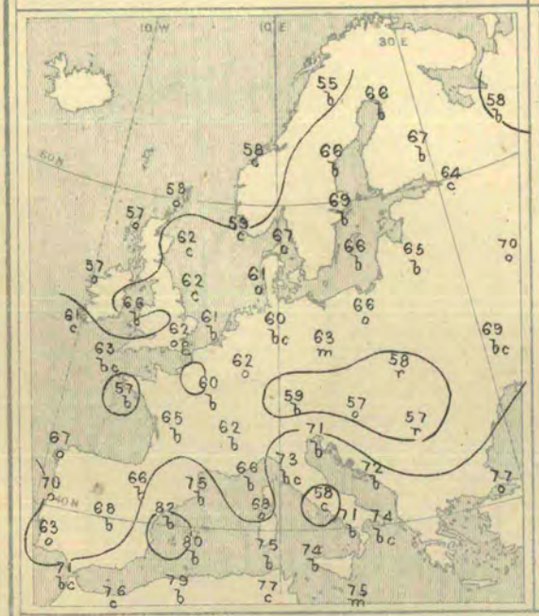


Wind very light and variable in most places, but moderate North-Easterly to Easterly over the Bay of Biscay, South-Westerly on the Irish and Scotch coasts, North-Westerly in Norway, Northerly on the eastern shores of the North Sea, and Westerly over Germany. No important change later.

Barometer highest, (1) 30·0 ins. and more in an anticyclone stretching eastwards from the Atlantic over England to the north and east of France and to western Germany; (2) 30·0 ins. to 29·9 ins. in another anticyclone lying over central Russia. Lowest, 29·6 ins. and less in a depression over the White Sea, 29·8 ins. and less in another off the extreme north-western coasts, and 29·9 ins. and less in other very shallow ones over Spain and the extreme south coast of France. Rising slowly over our Islands later, falling in France. Large shallow depression appearing over Asia Minor in evening.

Monday, 13th July.

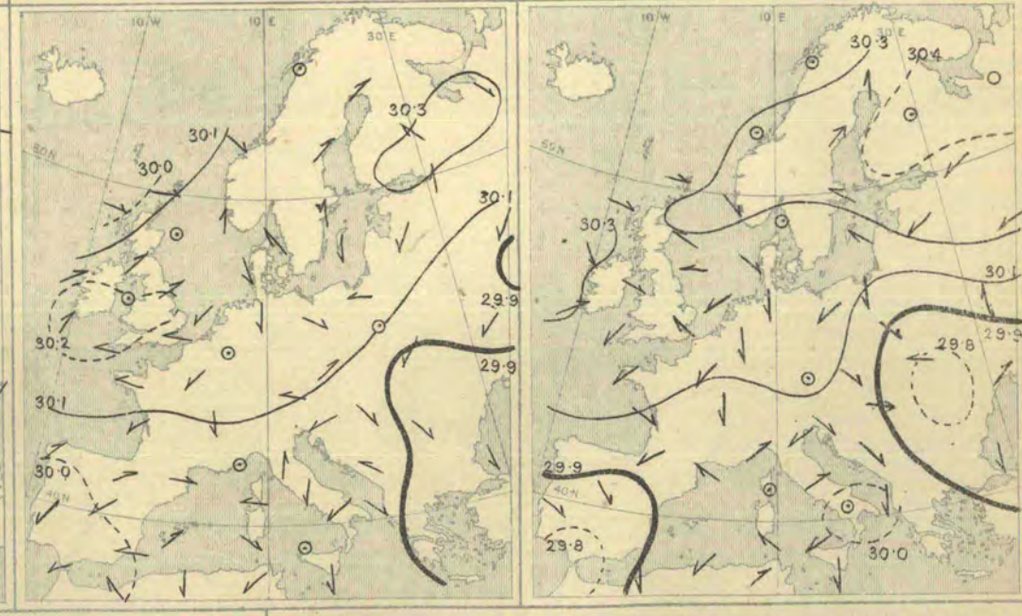
Temperature and Weather. 8 a.m.



Weather in morning fair over the United Kingdom generally, fine and bright over Sweden, western Germany, France, and southern Europe; dull and unsettled over south-eastern Europe, with rain at Hermanstadt and Lemberg. Some rain later in Scotland; weather continuing fair in most other localities, but thunderstorm occurring at Hamburg, and also at Athens.

Temperature risen slightly over north-western Europe, fallen in south-east. Morning readings exceeding 70° on the Spanish coast, and at most of the Mediterranean stations and at Constantinople; ranging from 64° to 69° on the shores of the Baltic and in the Sound; lower elsewhere, and below 60° in various parts of the British Islands and north-western and central Europe. Lowest, 54° at Prague and Le Mans, 55° at Bodö, 57° at Stornoway, Hermanstadt, and Belmullet, 58° at Archangel, Christiansund, Pembroke, Breslau, and Lemberg. Rising later to between 70° and 73° in several parts of our Islands and Scandinavia, to 80° and more in the south of France, to 95° at Rochefort and Madrid, and to 99° at Lisbon; exceeding 100° in central Algeria.

Barometer and Wind. 8 a.m. and 6 p.m.



Wind very light in force and variable in direction. Mainly Southerly to South-Westerly in Ireland and Scotland, Northerly in Denmark, western Germany, the English Channel, and France, North-Easterly over the Bay of Biscay. Northerly airs setting in over Ireland later and a North-Easterly wind in the English Channel. Cyclonic circulation of light winds appearing over Austria and the south of Russia.

Barometer highest, 30·3 ins. to 30·2 ins. in an anticyclone over northern Europe, and exceeding 30·2 ins. in many parts of the United Kingdom and the Netherlands. Lowest, 29·8 ins. and less over the Black Sea and Asia Minor, and below 30·0 ins. over the extreme north-western parts of the British Islands. Rising over the United Kingdom during the day as a new anticyclone advanced over Ireland from the westward. Falling over eastern Europe as a well-marked depression moved out from the Black Sea.

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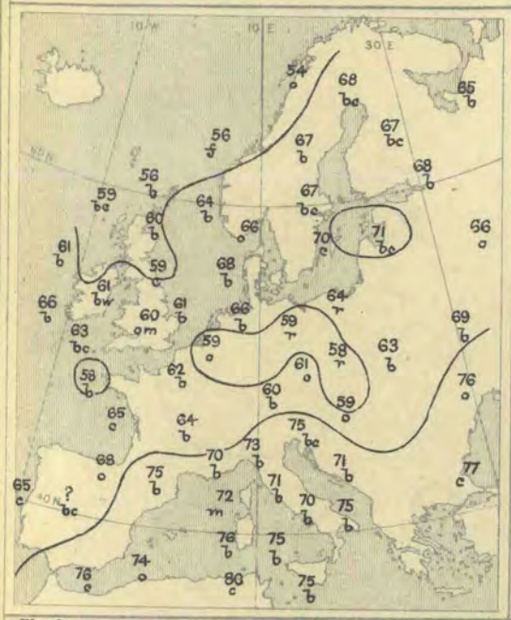
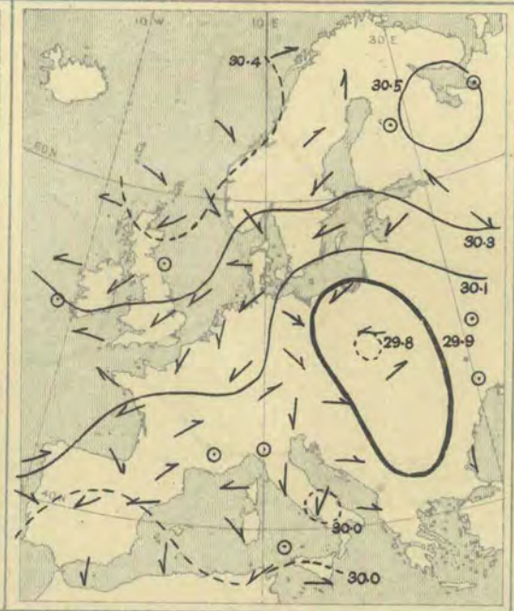
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 14th July.

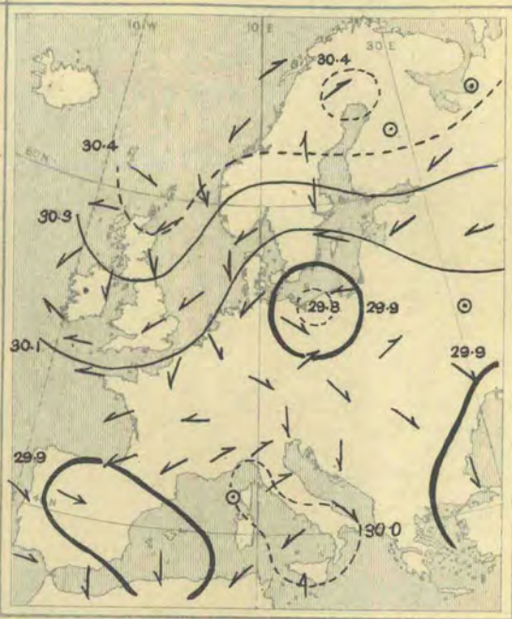
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the greater portion of Europe, but dull at some of our own inland stations and rainy over the eastern and northern parts of Germany. Heavy rain falling later over western Germany, and smaller quantities in Denmark. Thunderstorms occurring at Athens and Constantinople.

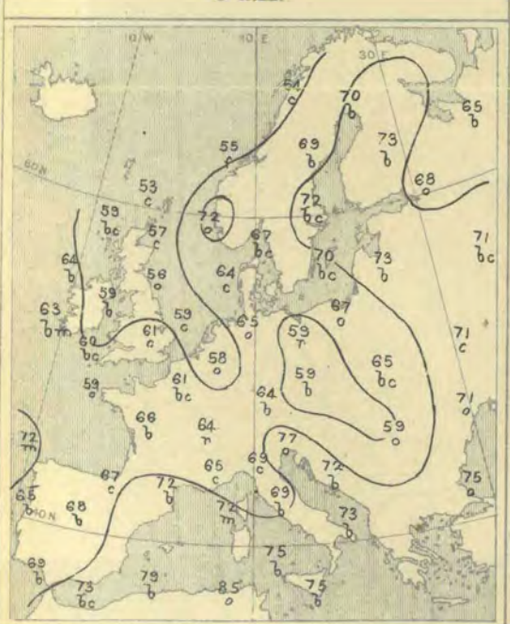
Temperature highest, 80° at Barcelona and La Calle, 77° at Sfax and Constantinople, and 76° at Cagliari, Nemours, Oran, Tunis, and Odessa; above 70° in many parts of southern and eastern Europe, and also over the Baltic Provinces. Lowest, 54° at Bodö, 55° at Parsonstown, and 56° at Christiansund, Sumburgh Head, Malin Head, and Donaghadee; below 60° at many of our own western and northern stations, as well as in some parts of Germany and Austria. Daily maxima very little above 70° in any part of the United Kingdom, but thermometer exceeding 80° at several of the French stations and exceeding 90° over Algeria and central Spain. Highest readings of all, 111° at Biskra, 106° at Laghouat, and 93° at Madrid.

Wind light or moderate from the Eastward or North-Eastward over the Baltic and the greater part of western Europe, Northerly or North-Westerly in Germany, Westerly in Austria. Light from the South-Westward over the northern parts of Scandinavia, variable in Russia, light from the Northward over Italy and Algeria. Not much change later, but strong Easterly wind setting in at the mouth of the Gulf of Finland.

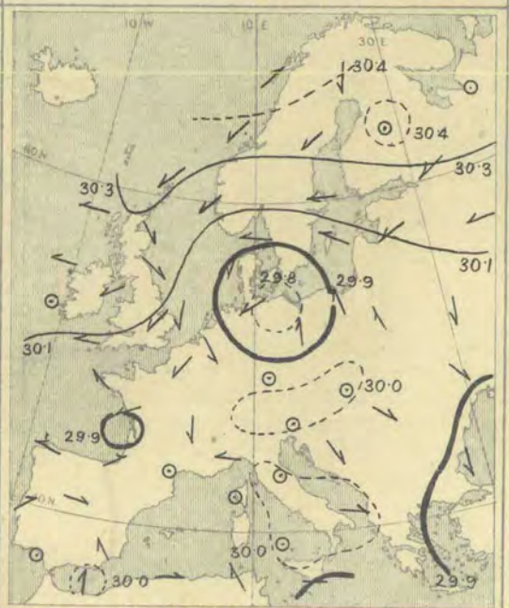
Barometer highest, 30·4 ins. to 30·5 ins. over northern Russia, and also in another area lying over Scotland, the west of Norway, and the northern parts of the North Sea. Lowest, 29·9 ins. and less in a large shallow depression lying over Austria and eastern Germany. Gradients moderately steep over the Baltic. Depression subsequently travelling in a north-westerly direction and becoming deeper; gradients increasing over north Germany and the Baltic.

Wednesday, 15th July.

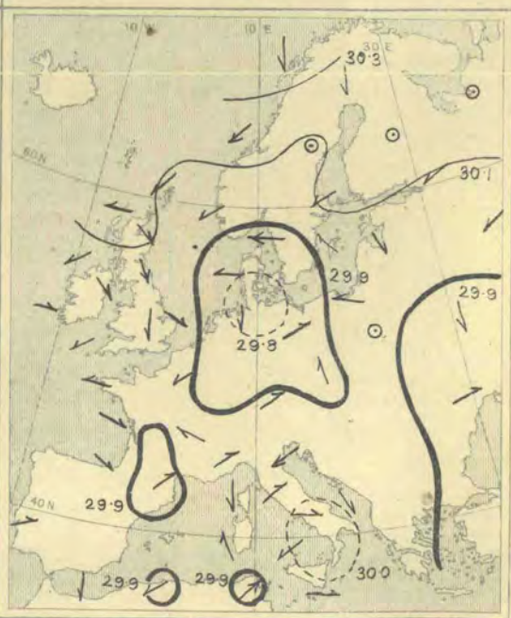
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather dull over the Netherlands, north Germany, the south of Norway, and the eastern and central parts of England, with rain at Faerder, the Helder, Münster, and Berlin. Fine in nearly all other parts of Europe, but foggy at Christiansund and Toulon, and rainy at Lyons. Rainy weather extending later from the Continent to the eastern parts of Great Britain. Thunderstorms occurring at Lyons and Biarritz, and very heavy rain at several of the Russian stations—as much as 2·36 ins. being measured at Riga and 1·71 ins. at Odessa.

Temperature highest, 85° at La Calle, 83° at Barcelona, 79° at Algiers, and 77° at Kharkov and Nicolaieff; above 70° in most parts of southern and eastern Europe, as well as at several of the Baltic and Scandinavian stations. Lowest, 53° at Sumburgh Head, 54° at Wick, and 56° at Shields; below 60° in many parts of Great Britain, and also at some of the German and Austrian stations. Daily maxima very little above 70° in any part of the United Kingdom, but thermometer exceeding 80° over Italy, Austria, and France, and exceeding 90° at several of the Algerian stations, the highest reading of all being 107° at Laghouat.

Wind light or moderate from the Northward over the Netherlands and the eastern parts of England, but Easterly or North-Easterly in nearly all other parts of northern and north-western Europe. Light from the Southward over eastern and northern Germany, variable over southern Europe, light from the Northward in the south of Russia. Subsequently shifting to the North-Westward in the west of France.

Barometer highest, 30·3 ins. to 30·4 ins. and upwards in an anticyclone extending from the northern parts of Russia and Scandinavia to the extreme north of Scotland. Lowest, 29·8 ins. and less in a well-marked depression lying over north Germany, 29·9 ins. and less in a small shallow disturbance lying over the west of France, and also in a larger system over the Black Sea. German depression subsequently moving slowly in a west-north-westerly direction towards the North Sea.

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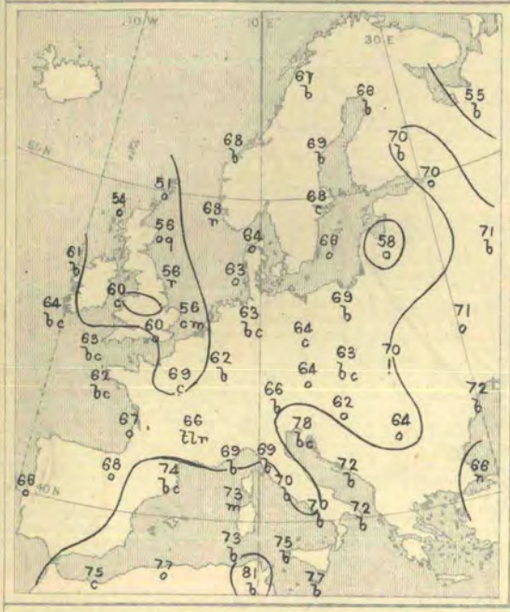
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 16th July.

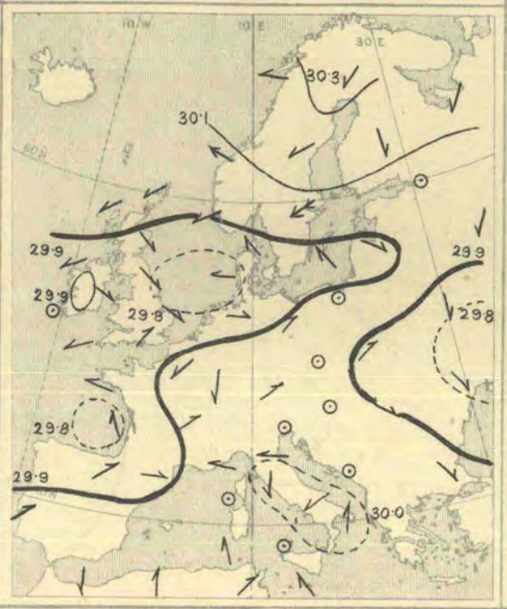
Temperature and Weather.

8 a.m.

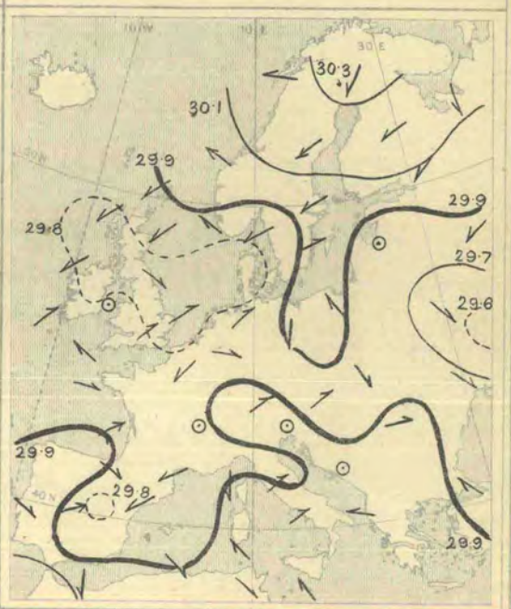


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning dull, unsettled, and rainy over all the northern parts of the United Kingdom, fairer in the south and at most of the Continental stations, fine and bright in many regions. A great deal of rain in Scotland and Norway later, some (0·08 ins.) at Cambridge, and at certain stations in south-western and central Europe. Thunderstorm in central France, and sky looking very unsettled and rainlike over England generally.

Temperature beginning to recover decidedly over England. Morning readings exceeding 70° at the Mediterranean stations and in Russia, and varying between 66° and 69° on the Swedish and Norwegian coasts; below 60° over the northern parts of the United Kingdom, and as low as 53° at Wick, 54° at Stornoway, 55° at Archangel, 56° at Nairn, Aberdeen, Shields, and Yarmouth, and 59° at Paris. Rising later to 78° in London and at Jersey, 76° at Loughborough, and 75° at Paris, but to 80° and more in Austria and the south of France, to nearly 90° in some parts of Italy, and to between 90° and 104° over Algeria.

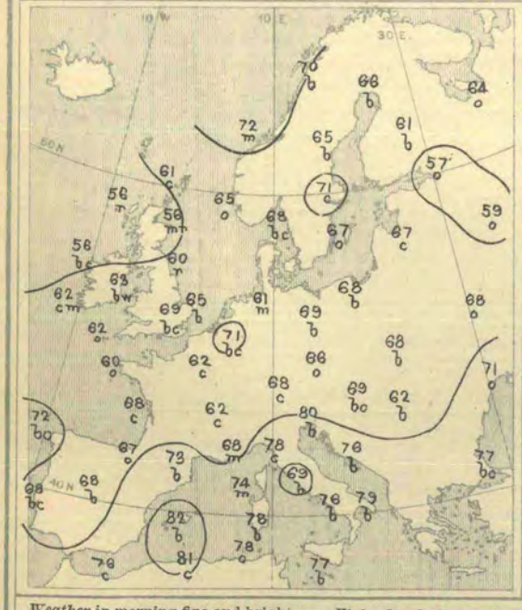
Wind Easterly to North-Easterly over northern Europe—a gale at Stockholm and Christiansund, but moderate as a whole; Northerly to North-Westerly over the northern parts of our Islands, Westerly and South-Westerly in the south, very variable and light elsewhere. Becoming North-Easterly in Scotland later, and varying a good deal over our southern counties.

Barometer highest, (1) 30·3 ins. and more to 30·0 ins. over the northern parts of Europe; (2) 30·0 ins. to 29·9 ins. over the Mediterranean, Spain, Switzerland, Austria, and south Germany. Lowest, 29·8 ins. and less in three depressions—one over southern Russia, another over the North Sea, and a third over the Bay of Biscay. All the depressions moving north-westwards later, that over southern Russia being well defined, but not deep.

Friday, 17th July.

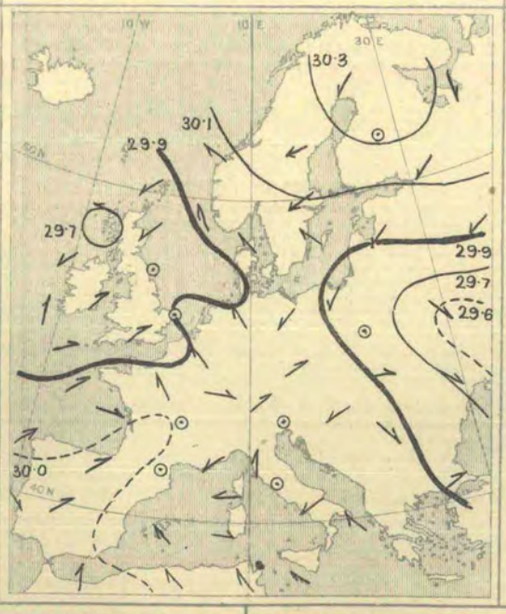
Temperature and Weather.

8 a.m.

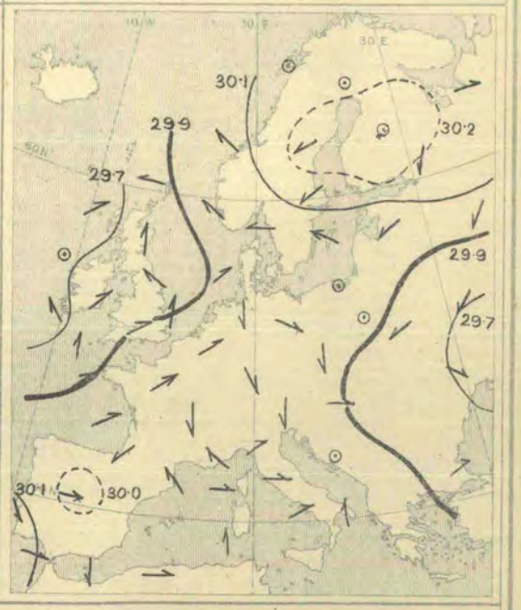


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over Finland and the northern parts of Scandinavia, as well as in many parts of Germany, England, Ireland, Spain, the countries bordering on the Mediterranean, and south-eastern Europe; cloudy and unsettled over the northern parts of the United Kingdom, and in southern Russia, with rain at several of the Scotch stations. Rain later in Norway, Scotland, Ireland, and some parts of England and France, with thunderstorms in several places. Very heavy rain locally at Berlin.

Temperature rising over England, France, and Germany. Morning readings exceeding 70° over Spain and the Mediterranean, and most parts of south-eastern Europe—81° at Algiers, 80° at Trieste. Slightly exceeding 70° at Stockholm and in the north-west of Norway; lower elsewhere. Below 60° in the extreme north-west and north of our Islands, and as low as 44° at Archangel, 56° at Aberdeen and Belmullet, and 57° at Malin Head, Wick, and St. Petersburg. Rising to between 80° and 82° later in several parts of England, the south of France, and at Berlin; reaching 90° or more in Algeria and some parts of Italy.

Wind mainly Easterly over northern Europe, including Scotland, and blowing strongly in the Gulfs of Finland and Bothnia. Chiefly South-Westerly over the southern half of England, France, the Bay of Biscay, and Spain. Very variable elsewhere. Not much change later, beyond a backing to South-East at Valencia Island.

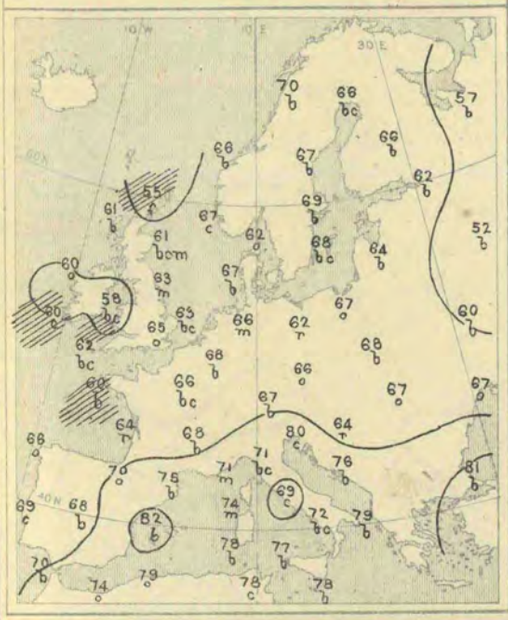
Barometer highest, 30·3 ins. and more to 30·0 ins. over Scandinavia, Finland, and the northern half of Russia; 30·0 ins. and more over Spain and the south-west of France. Lowest, 29·6 ins. and less in a well-marked depression over southern Russia, and 29·7 ins. and less in a shallow disturbance off the west of Scotland. Former disturbance subsequently travelling eastward; latter system passing away to north-westward later, but new one approaching Ireland from the south-westward.

Judd & Co Ltd Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

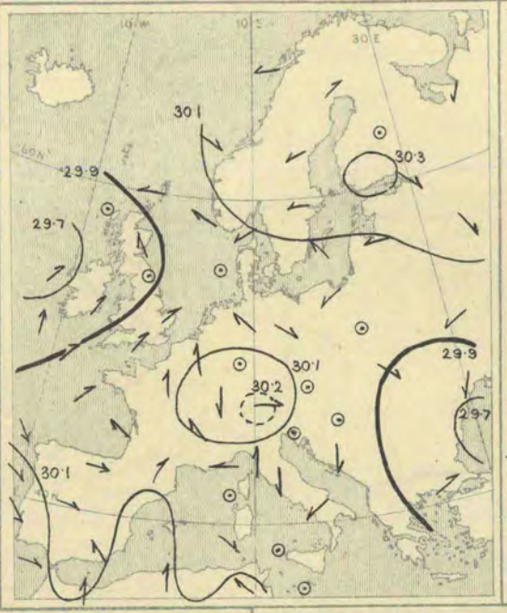
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 18th July.

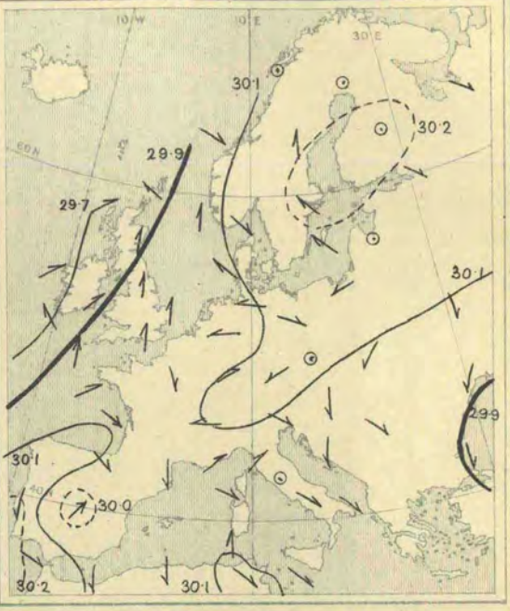
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fine in the extreme northern and southern parts of the United Kingdom, as well as at most of the Continental stations, but showery in the north of Ireland, and also in some parts of central England. Dull in Spain, rainy in the west of France. Thunderstorms occurring later in many parts of England, France, and Germany, with heavy rain in places.

Temperature highest, 82° at Barcelona, 81° at Constantinople, 80° at Trieste, and 79° at Brindisi and Algiers; above 70° in most parts of southern and eastern Europe and just reaching that point at Bodö. Lowest, (1) 52° at Moscow, 57° at Archangel, and 60° at Kiev; (2) 55° at Sumburgh Head and 57° at Malin Head, Mullaghmore, and Donaghadee. Daily maxima very little above 70° in any part of the United Kingdom, but thermometer exceeding 80° in most of the central and southern countries, the highest European readings being 93° at Florence and Brindisi and 91° at Rome.

Wind moderate from the South-Westward in the west and south of our Islands and the north of France; light from the South-Eastward on our northern coasts; Easterly over Scandinavia, Denmark, and the Baltic. Moderate from between North-West and West over the Iberian Peninsula, variable over Italy and central Europe, light from the Northward in the south of Russia, Southerly or South-Easterly in Algeria. Subsequently veering to the Southward over the northern parts of the United Kingdom, but little change occurring elsewhere.

Barometer highest, 30·2 ins. and upwards in a large anticyclone lying over Finland and the Gulf of Bothnia, as well as in two smaller systems lying respectively over south Germany and central Portugal. Lowest, 29·7 ins. and less in a depression lying off the west of Ireland, 29·8 ins. and less in another disturbance having its centre near the mouths of the Danube. No important change occurring during day, but new depression approaching the south of Ireland in evening.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

At the commencement of the week an anticyclonic distribution of pressure was reported over nearly the entire Continent, the winds being light and variable, with fair weather in most countries, but with thunderstorms and considerable falls of rain in Germany. On the 13th, however, a depression began to advance over Europe from the neighbourhood of the Black Sea; and in the course of the three following days the disturbance travelled slowly in a west-north-westerly direction across Poland, north Germany, and the North Sea to the northern parts of the United Kingdom. During its progress North-Easterly winds prevailed in all the more western and northern countries, and unsettled rainy weather gradually spread over from the eastward, while thunderstorms were experienced in many parts of France and central Europe. Towards the close of the week the depression was rapidly disappearing, but some new disturbances were beginning to arrive off our west and south-west coasts from the Atlantic. The wind over our Islands was, therefore, shifting to the South-Westward or Southward, and the weather was becoming increasingly unsettled in all but the southern and eastern countries, where a decided improvement was shown. The temperatures recorded over Europe generally were higher than of late, particularly in Scandinavia, where the weather was at times exceedingly warm.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 164.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	29·7	?	25	?	EASTBOURNE	50·3	?	46	?
OSWALDKIRK (Yorkshire)	24·9	?	22	?	TORQUAY	69·9 *	?	64 *	?
WORKSOP	?	?	?	?	ARLEY COTTAGE (County Cavan)	56·4	?	49	?
THURCASTON (Leicestershire	32·3	−4·7	29	−4					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

Judd & Co Ltd Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 18th July.

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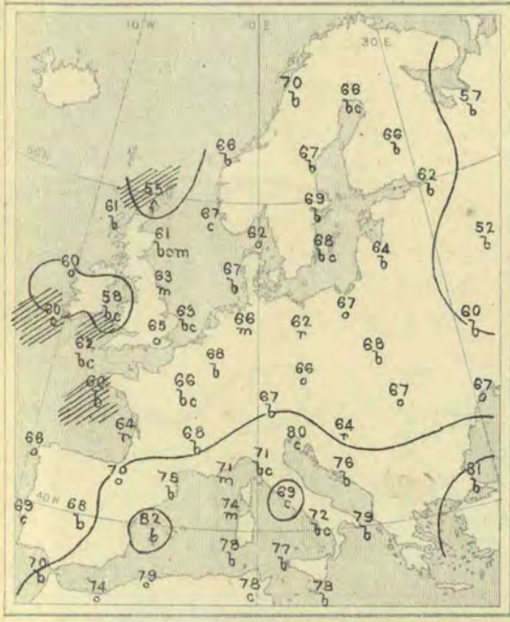
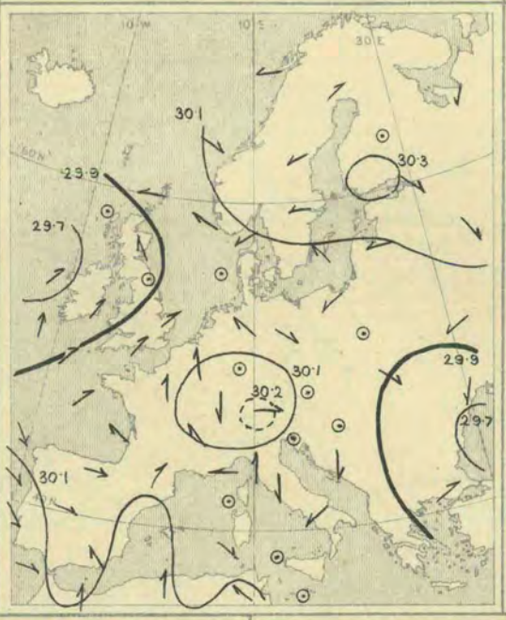
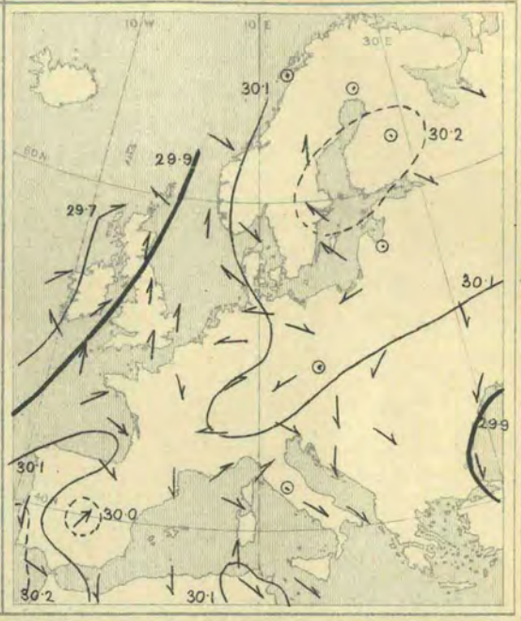


Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



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GENERAL NOTES.

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BRIGHT SUNSHINE Values for the Week in addition to those found on page 164.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	29·7	?	25	?	EASTBOURNE	50·3	?	46	?
OSWALDKIRK (Yorkshire)	24·9	?	22	?	TORQUAY	69·9 *	?	64 *	?
WORKSOP	?	?	?	?	ARLEY COTTAGE (County Cavan)	56·4	?	49	?
THURCASTON (Leicestershire)	32·3	−4·7	29	−4					

* The values at Torquay are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 29.] *Third Series.* WEEK ENDING SATURDAY, 25TH JULY, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10*s.* 0*d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 170.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Observed during the Week. Averages of Daily Maxima.	Observed during the Week. Averages of Daily Minima.	Observed during the Week. Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	For the Week. Difference from Mean.	For the Week. Below 42°	For the Week. Difference from Mean.	From January 4th, 1891. Above 42°	From January 4th, 1891. Difference from Mean.	From January 4th, 1891. Below 42°	From January 4th, 1891. Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	68	46	61·2	51·7	56·1	1 above.	99	+18	0	0	1043	+155	621	+ 79
1. SCOTLAND, EAST	73	47	65·3	52·7	58·6	2 above.	116	+13	0	0	1168	− 18	670	+101
2. ENGLAND, N.E.	72	48	66·5	53·3	59·4	0 (average)	122	+ 7	0	0	1154	− 75	593	+ 95
3. ENGLAND, EAST	73	46	68·1	53·0	60·0	1 below.	126	− 1	0	0	1392	− 72	689	+128
4. MIDLAND COUNTIES	73	46	66·7	51·7	58·7	1 below.	117	− 5	0	0	1417	− 53	668	+116
5. ENGLAND, SOUTH	74	49	67·5	54·5	60·5	1 below.	130	− 2	0	0	1510	− 74	565	+149
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	69	46	64·1	53·0	58·2	1 above.	113	+10	0	0	1309	+ 92	463	+ 46
7. ENGLAND, N.W.	68	45	64·3	53·5	58·6	0 (average)	116	+ 2	0	0	1330	+ 27	449	+ 35
8. ENGLAND, S.W.	72	45	64·0	53·5	58·4	1 below.	115	− 3	0	0	1432	− 44	434	+118
9. IRELAND, NORTH	73	48	64·3	53·5	58·3	1 above.	116	+12	0	0	1374*	+ 47	391*	+ 29
10. IRELAND, SOUTH	71	48	65·5	53·9	59·3	0 (average)	121	+ 7	0	0	1559	+ 37	309	+ 31
— CHANNEL ISLANDS	66	55	64·8	56·6	60·4	1 below.	129	0	0	0	1626	+ 1	162	+ 40

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 170.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	6	11	2 more.	125	− 7	24·3	+ 0·1	16	− 8	13	− 6	808	+ 50	30	+ 2
1. SCOTLAND, EAST	4	5	2 less.	87	−20	11·7	− 4·4	28	−11	25	−12	853	− 11	32	0
2. ENGLAND, N.E.	3	8	2 more.	87	−12	10·0	− 3·0	36	− 1	32	0	810*	+ 26	30	0
3. ENGLAND, EAST	5	8	2 more.	95	− 2	11·2	− 1·9	32	−13	29	−12	864	− 79	33	− 3
4. MIDLAND COUNTIES	4	3	3 less.	90	− 6	12·4	− 2·4	33	− 7	30	− 6	846	+ 14	32	0
5. ENGLAND, SOUTH	3	4	1 less.	84	− 9	11·8	− 2·2	40	− 3	37	− 5	971	+ 78	37	+ 3
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	3	2	7 less.	94	−20	15·4	− 9·6	36	− 1	32	0	902	+ 51	34	+ 2
7. ENGLAND, N.W.	5	12	5 more.	85	−19	12·7	− 4·0	25	−12	22	−12	832	− 9	31	− 1
8. ENGLAND, S.W.	4	11	3 more.	90	−17	16·1	− 3·7	34	−10	31	− 9	1024	+ 43	39	+ 1
9. IRELAND, NORTH	4	5	3 less.	106	−16	13·0	− 5·3	27	− 4	24	− 3	871	+ 76	33	+ 3
10. IRELAND, SOUTH	4	5	2 less.	96	−17	15·2	− 5·1	31	− 4	28	− 3	939	+ 32	35	+ 1
— CHANNEL ISLANDS	2	1	5 less.	91	−23	12·9	− 3·2	48	−10	45	− 9	1260	+128	48	+ 5

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather was cool and unsettled during the greater part of the week, with thunderstorms and heavy showers in nearly all districts. Towards the close of the period, however, a considerable improvement was recorded.

Temperature has not differed materially from the mean, excepting in "Scotland E.," where the average has been two degrees in excess of the normal. In other districts the departure from the mean has in no case exceeded one degree, and in "England N.E.," "England N.W.," and "Ireland S." it has been quite inappreciable. The highest readings were observed either at the beginning or end of the week, but the thermometer did not reach 75° in any district, and in the west and north of Scotland, the north-west of England, and the "Channel Islands" it failed to reach 70°. On the 22nd the maximum readings were below 65° in all but the central and southern parts of England. The lowest of the minima, which occurred on various dates, ranged from 45° in "England N.W." and "England S.W." to 55° in the "Channel Islands."

Rainfall has been rather more than the mean in the north of Scotland and the eastern and western districts of England, but less in all other parts of the country. In "Scotland W." the deficiency has again been very large.

Bright Sunshine has been less than the mean in all districts, excepting "England N.E." and "Scotland W." The percentage of the possible amount has ranged from 13 in "Scotland N." and 22 in "England N.W." to 37 in "England S." and 40 in the "Channel Islands."

Barometer and Wind.—During the first three days an anticyclone lay to the southward and south-eastward of our Islands, while some large but shallow low-pressure systems skirted our extreme north-western and northern coasts. The prevailing winds at this time were, therefore, South-Westerly or Southerly. On the 22nd and 23rd, however, the anti-cyclone gave way, while a well-marked depression, which had formed over the northern parts of the United Kingdom on the night of the 21st, moved south-eastwards to the North Sea and Holland, where it gradually dispersed. In the rear of the disturbance the wind veered to the Westward or North-Westward, and by the close of the week a new anticyclone had spread from the Atlantic over France and the south and south-west of our Islands.

* This value has been altered owing to the receipt of further information.

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213 70 7 | 91 1896

II.—DATA from which the SUMMARY on page 169 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	62	49	59·3	51·1	54·9	+ 2·2	90	0	6	3·22	+2·70	*	*	*	*
	Stornoway	65	46	60·7	50·0	55·0	+ 0·6	91	0	5	0·08	−0·62	24·0	− 7·7	20	− 6
	Wick	67	50	61·9	51·4	56·3	+ 1·0	100	0	7	0·83	+0·28	*	*	*	*
	Lairg ℌ	68	51	62·8	52·4	57·2	+ 1·9	106	0	6	1·47	+0·79	*	*	*	*
	Glencarron ℌ	65	49	60·4	50·9	55·3	+ 0·7	93	0	7	1·04	−0·38	*	*	*	*
	Fort Augustus ℌ	67	51	62·0	53·2	57·3	+ 0·6	107	0	4	0·75	+0·03	12·0	?	10	?
	Fort William ℌ	66	49	61·5	52·7	56·8	+ 0·1	104	0	4	0·40	−0·84	11·0	?	9	?
1. SCOTLAND, E.	Nairn	67	52	64·1	53·0	58·2	+ 0·8	113	0	3	1·03	+0·42	*	*	*	*
	Aberdeen	68	53	65·4	55·1	59·9	+ 2·8	125	0	4	0·28	−0·40	24·7	−12·8	21	−12
	Braemar ℌ	67	47	62·7	50·6	56·2	+ 1·5	99	0	3	0·11	−0·58	25·0†	? †	22†	?†
	Ochtertyre ℌ	73	48	68·3	52·0	59·6	+ 2·5	123	0	2	0·06	−0·73	*	*	*	*
	Leith	69	51	67·0	53·7	59·9	+ 1·0	125	0	5	0·90	+0·27	*	*	*	*
	Marchmont ℌ	68	48	64·4	51·6	57·6	+ 0·6	109	0	5	0·74	−0·06	31·8	?	28	?
2. ENGLAND, N.E.	Alnwick Castle	69	50	65·6	53·6	59·0	+ 1·4	119	0	2	0·30	−0·39	*	*	*	*
	Durham	72	51	68·0	52·7	59·8	+ 0·4	125	0	5	1·50	+0·83	37·0	+ 0·2	32	0
	Shields	69	49	65·3	51·7	58·0	0·0	112	0	3	1·27	+0·62	*	*	*	*
	Scarborough ℌ	72	51	66·7	54·4	60·1	+ 0·7	127	0	3	0·36	−0·33	*	*	*	*
	York	70	48	66·7	51·9	58·8	− 0·8	118	0	4	0·37	+0·34	34·7	?	31	?
	Spurn Head	71	53	66·6	55·6	60·7	+ 0·8	131	0	3	0·47	+0·07	*	*	*	*
3. ENGLAND, E.	Hillington ℌ	71	46	67·7	52·3	59·5	− 1·0	123	0	5	1·17	+0·47	28·8	−14·8	26	−12
	Yarmouth	69	51	66·0	55·3	60·3	− 0·3	128	0	5	1·39	+0·71	*	*	*	*
	Geldeston	73	49	68·6	52·5	60·0	− 0·6	126	0	5	0·69	+0·10	29·4	−17·3	27	−15
	Cambridge	72	51	69·0	53·0	60·4	− 1·0	129	0	3	0·58	+0·04	35·5	− 8·4	32	− 8
	Rothamsted	71	49	69·2	51·9	60·0	− 0·3	126	0	5	0·13	−0·50	35·5	?	32	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	73	48	67·7	52·1	59·4	− 0·9	122	0	3	0·25	−0·37	*	*	*	*
	Loughborough	71	52	67·7	54·0	60·4	− 1·1	129	0	3	0·25	−0·27	*		*	*
	Stamford (Ketton Hall)	70	48	69·0	52·1	60·0	− 1·5	126	0	4	0·50	?	*	*	*	*
	Cheadle ℌ	66	49	63·2	51·0	56·7	− 1·4	103	0	5	0·37	−0·35	*	*	*	*
	Churchstoke ℌ	70	46	65·6	51·1	57·9	− 0·2	111	0	4	0·34	−0·28	25·6	−13·7	23	−12
	Hereford ℌ	73	47	67·4	50·3	58·3	− 2·0	114	0	4	0·20	−0·34	*	*	*	*
	Cirencester	71	46	65·6	50·2	57·4	− 2·0	108	0	3	0·22	−0·49	38·9	− 2·2	35	− 3
	Oxford	70	49	67·1	53·1	59·6	− 1·4	123	0	3	0·37	−0·23	38·2	− 4·7	35	− 4
5. ENGLAND, S.	London	71	50	69·3	54·0	61·1	− 1·3	134	0	5	0·86	+0·34	36·7 †	− 3·1†	34†	− 3†
	Strathfield Turgiss ℌ	74	49	70·6	52·1	60·7	− 0·8	131	0	5	0·48	−0·05	*	*	*	*
	Dungeness	69	49	66·1	55·3	60·3	− 1·4	128	0	2	0·12	−0·33	*	*	*	*
	Hastings (St. Leonards)	70	52	65·3	54·7	59·6	− 2·3	123	0	3	0·16	−0·37	43·6	− 6·4	40	− 6
	Southampton	74	50	69·3	55·0	61·5	− 0·7	137	0	3	0·12	−0·50	38·8	− 7·8	36	− 7
	Hurst Castle	71	53	66·9	57·4	61·8	+ 0·2	139	0	2	0·20	−0·31	*	*	*	*
	Stowell ℌ	67	49	64·9	52·7	58·4	− 1·0	115	0	4	0·96	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	68	51	62·5	52·6	57·2	+ 0·2	106	0	7	0·67	−0·58	*	*	*	*
	Glasgow	68	50	65·2	53·0	58·7	+ 1·4	117	0	2	0·10	−0·75	33·8	+ 4·8	29	− 4
	Ardrossan	69	51	63·6	54·3	58·6	+ 0·7	116	0	2	0·10	−0·58	*	*	*	*
	Glenlee ℌ	69	46	65·9	52·0	58·5	+ 1·8	116	0	3	0·18	−0·34	*	*	*	*
	Douglas (Isle of Man)	66	50	63·4	53·0	57·8	+ 0·6	111	0	1	0·11	−0·62	38·7	− 4·1	35	− 3
7. ENGLAND, N.W.	Newton Reigny	68	45	64·9	50·6	57·3	+ 0·1	107	0	4	2·71	+1·96	39·2	+ 2·7	34	+ 1
	Stonyhurst	65	50	63·5	53·0	57·9	− 0·5	111	0	5	1·50	+0·43	22·7	−13·3	20	−13
	Blackpool ℌ	68	51	64·0	54·4	58·9	− 0·6	118	0	4	1·12	+0·34	22·5	−17·3	20	−15
	Manchester	67	51	64·7	53·2	58·6	+ 0·1	116	0	5	1·47	+0·57	*	*	*	*
	Liverpool Obsy. (Bidston)	67	52	64·0	54·7	59·0	− 0·8	119	0	6	0·98	+0·28	*	*	*	*
	Llandudno ℌ	66	52	64·5	54·5	59·2	− 0·9	120	0	4	0·37	−0·28	15·1	−21·6	14	−19
	Holyhead	68	52	64·3	54·3	59·0	+ 0·2	119	0	5	0·51	−0·07	*	*	*	*
8. ENGLAND, S.W.	Llandovery	72	50	67·3	52·7	59·5	+ 0·3	123	0	5	0·78	−0·20	*	*	*	*
	Pembroke	61	55	59·9	55·6	57·6	− 0·9	109	0	4	0·19	−0·41	23·6	−21·2	21	−20
	Arlington (N. Devon)	66	50	63·0	52·0	57·1	− 1·3	106	0	4	1·93	+0·82	*	*	*	*
	Cullompton ℌ	69	45	66·2	51·8	58·5	− 1·2	116	0	4	1·08	+0·40	32·2	− 6·9	30	− 6
	Falmouth	67	54	64·7	54·8	59·4	− 0·6	122	0	3	2·20	+1·39	44·9	− 1·4	42	− 2
	Plymouth															
	Prawle Point	68	51	63·0	54·0	58·2	− 1·1	113	0	1	0·57	+0·03	*	*	*	*
9. IRELAND, N.	Malin Head	64	53	62·0	54·3	57·9	+ 0·7	111	0	4	0·53	?	*	*	*	*
	Londonderry	68	52	65·1	53·7	59·0	+ 1·0	119	0	5	0·47	−0·34	*	*	*	*
	Mullaghmore	64	54	62·4	54·9	58·4	+ 0·2	115	0	5	0·34	−0·54	*	*	*	*
	Belmullet	66	53	63·0	54·9	58·7	+ 0·8	117	0	6	0·69	?	*	*	*	*
	Markree Castle	69	48	64·4	51·8	57·7	+ 1·1	110	0	4	0·44	−0·30	27·5	− 0·7	25	− 2
	Brookeborough	67	49	64·2	51·5	57·4	+ 0·5	108	0	4	0·29	−0·59	*	*	*	*
	Armagh	70	51	66·0	53·0	59·1	+ 1·5	120	0	4	0·34	−0·41	23·9	− 5·9	21	− 5
	Donaghadee	69	55	65·3	56·0	60·3	+ 3·1	128	0	4	1·14	+0·44	*	*	*	*
	Edgeworthstown	73	50	66·6	51·4	58·5	+ 0·9	116	0	3	0·37	−0·48	*	*	*	*
10. IRELAND, S.	Dublin	71	52	66·9	54·8	60·4	+ 0·7	129	0	4	0·52	−0·06	39·0	+ 3·8	35	+ 2
	Parsonstown	71	50	65·6	52·3	58·5	− 0·1	116	0	5	0·47	−0·22	18·7	−13·4	17	−11
	Kilkenny	70	50	65·3	52·4	58·4	− 0·1	115	0	4	0·79	+0·20	*	*	*	*
	Waterford	70	48	67·1	52·8	59·5	0·0	123	0	3	0·63	−0·06	*	*	*	*
	Roche's Point	70	52	65·7	54·3	59·7	+ 0·1	124	0	1	0·15	−0·60	*	*	*	*
	Valencia	66	52	64·0	55·1	59·2	+ 0·6	120	0	5	0·46	−0·45	36·3	+ 1·5	33	+ 1
	Killarney	68	52	65·4	54·2	59·4	+ 1·1	122	0	4	0·42	?	*	*	*	*
	Foynes	68	53	63·8	55·4	59·3	+ 0·7	121	0	5	0·30	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	66	55	64·4	56·1	60·0	− 0·3	126	0	2	0·05	−0·54	*	*	*	*
	Jersey	66	55	65·1	57·1	60·8	− 1·7	132	0	1	0·16	−0·38	42·9	− 9·9	40	− 9

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

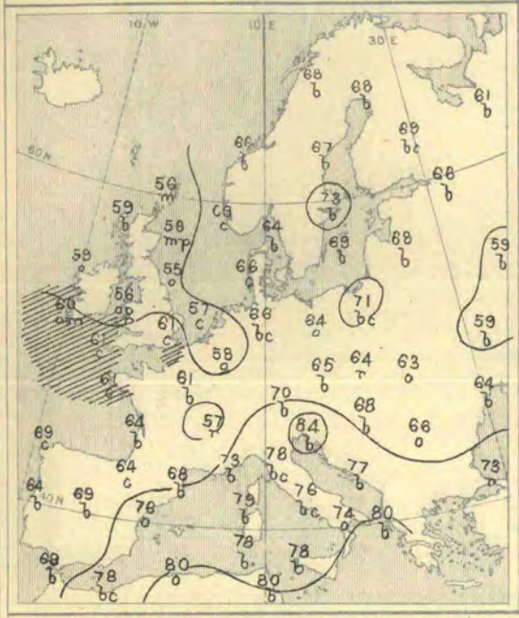
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 19th July.

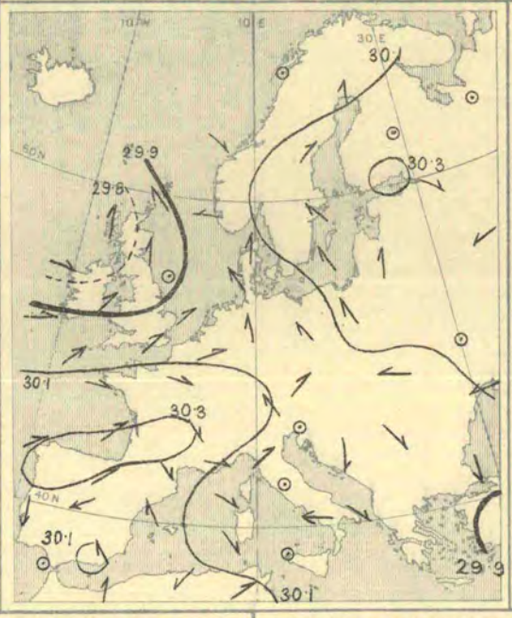
Temperature and Weather.

8 a.m.

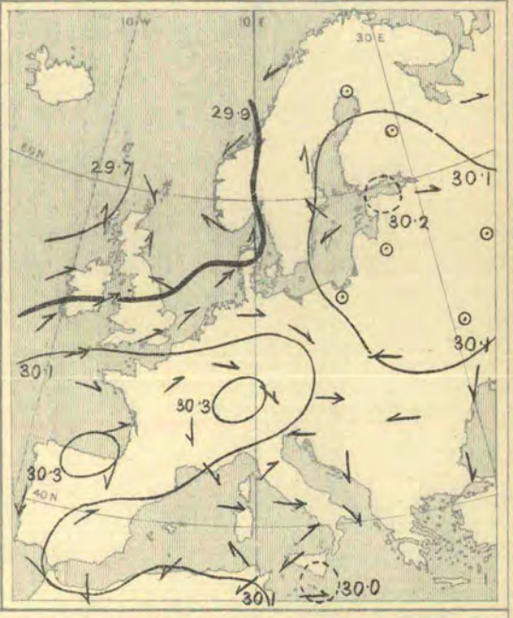


Barometer and Wind.

8 a.m.



6 p.m.



Weather cloudy and showery over the greater part of the United Kingdom, but fine at the Continental stations. Thunderstorms occurring over England during day, with heavy showers in places. Continuous rain falling in the Shetlands, the amount recorded next morning being as much as 2·6 ins. at Sumburgh Head. Large quantities of rain falling also in some parts of Austria and north Germany.

Temperature highest, 81° at Sfax, 80° at Algiers and Brindisi, and 79° at Sanguinaire; above 70° in most parts of southern and eastern Europe, and also at some of the Baltic stations; above 65° over nearly the whole of Scandinavia. Lowest, 55° at Wick, Shields, and Parsonstown, 56° at Sumburgh Head, Aberdeen, Donaghadee, and Holyhead, and 57° at Malin Head, Liverpool, and Lyons; below 60° in most parts of the United Kingdom, as well as in some of the central parts of France and Russia. Daily maxima very little above 70° in any part of the United Kingdom, but thermometer exceeding 80° in France, and exceeding 90° in many parts of southern Europe, the highest readings of all being 93° at Brindisi and 91° at Rome, Madrid, and Oran.

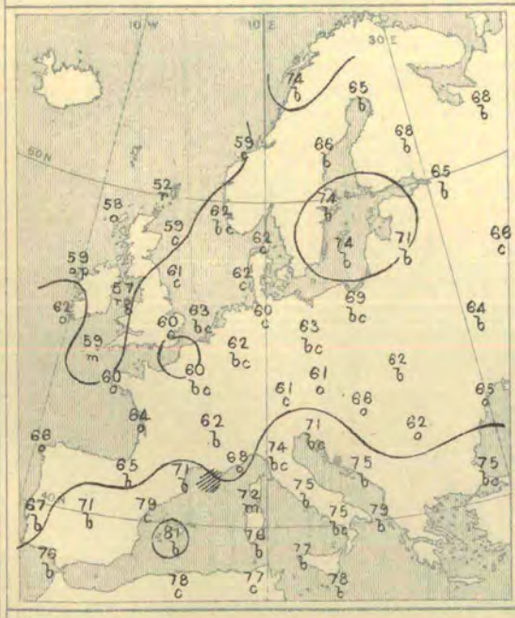
Wind light to fresh from the South-Westward over the southern parts of our Islands and the west and north of France; Southerly or South-Easterly over the northern half of the United Kingdom and the eastern shores of the North Sea. Light from the Eastward over the west and south of Russia; variable over southern Europe, Algeria, and the Mediterranean. Subsequently veering to the Southward or South-Westward in the north of our Islands. Light to moderate Westerly breezes setting in over Italy.

Barometer highest, 30·2 ins. to 30·3 ins. in an anticyclone lying over France and the western and northern parts of the Iberian Peninsula, and also in another system lying over Finland and the Gulf of Bothnia. Lowest, 29·8 ins. and less in a depression lying to the north-westward of the United Kingdom. Depression subsequently travelling steadily North-North-Eastwards, but secondary disturbances passing across our Islands in an easterly direction and barometer remaining somewhat unsteady.

Monday, 20th July.

Temperature and Weather.

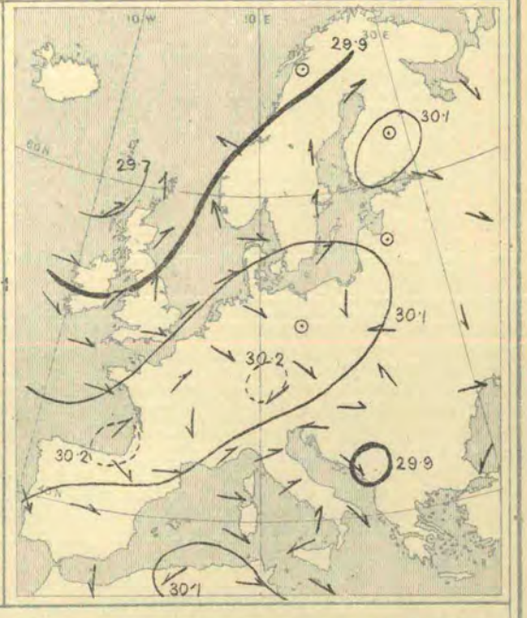
8 a.m.



Barometer and Wind.

8 a.m.

6 p.m.



Weather dull in the western and northern parts of the United Kingdom, with steady rain or passing showers in many places. Fine in the east and south-east of England, as well as at most of the Continental stations, but rainy in some parts of Germany and Austria. Showers falling during day in nearly all parts of our Islands—heavily at Prawle Point, where thunder occurred. Large quantities of rain also occurring at some of the German and Austrian stations.

Temperature highest, 81° at Palma and Sfax, 80° at Tunis, and 79° at Barcelona and Brindisi; above 70° in most parts of southern Europe, as well as at some of the Scandinavian stations. Lowest, 52° at Sumburgh Head, 56° at Malin Head, and 57° at Ardrossan, Holyhead, and Pembroke; below 60° at several of our own western and northern stations. Rising during day to 70° or a little above in some parts of Ireland and England, exceeding 80° in the south of France, and exceeding 90° at several of the Spanish, Italian, and Algerian stations.

Wind light to fresh from the Southward or South-Westward over our Islands, the North Sea, Denmark, the Netherlands, and the greater part of Scandinavia. Light from South-East in the west of France, and also at some of the Baltic stations; Northerly or North-Easterly in Spain, Italy, and the south of Russia; Westerly in Germany, variable in Algeria. Subsequently veering to the Westward on the west coasts of our Islands and France; no important change occurring elsewhere.

Barometer highest, 30·2 ins. and upwards in a large anticyclone, the central portion of which lay over France, south Germany, and the north-east of Spain. Lowest, 29·7 ins. and less in a depression lying to the northward and north-westward of Scotland. Depression gradually filling up during day, but shallow secondary disturbances moving north-eastwards across the United Kingdom, and barometer over our Islands very unsteady. Fall taking place at Continental stations and anticyclone becoming reduced in size.

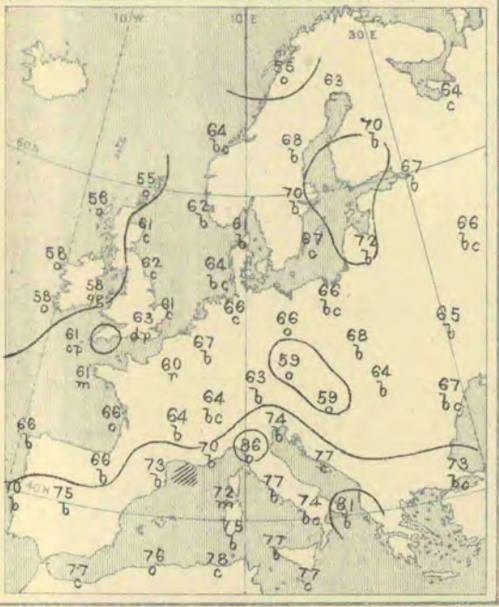
Judd & Co Ltd Lith. 73 & 75, Farringdon Rd & Doctors' Commons

III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 21st July.

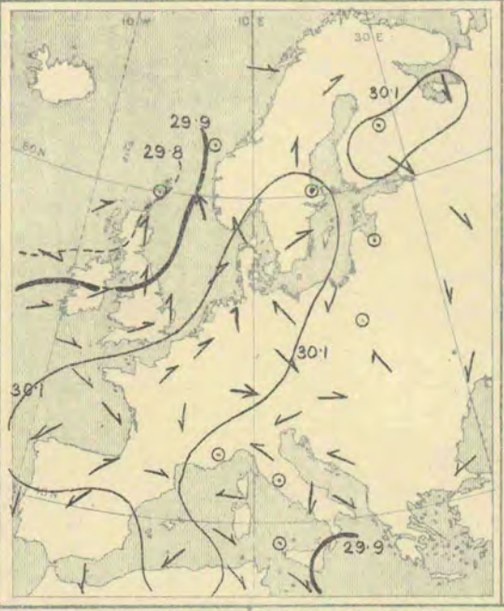
Temperature and Weather.

8 a.m.

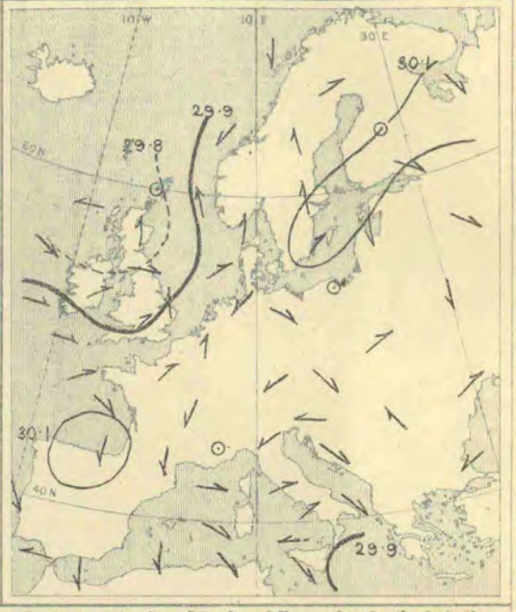


Barometer and Wind.

8 a.m.



6 p.m.



Weather cloudy or overcast over the greater part of the United Kingdom, with passing showers in many places. Fine at most of the Continental stations, but dull over the central parts of France and Germany, with rain at Paris and Breslau. Heavy rain falling later over the north of our Islands, and thunderstorms occurring in the north and east of England, as well as in Holland, north Germany, Poland, and some parts of France.

Temperature highest, 84° at Palma, 82° at Barcelona, 81° at Brindisi and Aumale, and 78° at La Calle; above 75° at most of the Adriatic and Mediterranean stations, and a little above 70° in some parts of Finland and the Baltic Provinces. Lowest, 55° at Sumburgh Head, 56° at Stornoway and Breslau, and 57° at Malin Head; below 60° at several of our own western and extreme northern stations, as well as in some parts of Germany and Austria. Subsequently rising to 70° or a little above at some of the English stations, to 75° or more over western Germany, and to 80° or more in the south of France. Exceeding 90° in Algeria and the south of Italy, the highest reading of all being 102° at Laghouat.

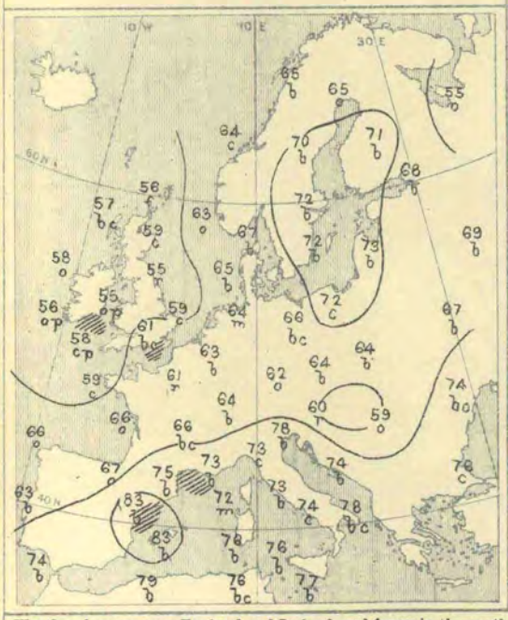
Wind light from the Westward on the west coasts of our Islands and France, but Southerly in the eastern parts of Great Britain, as well as in Scandinavia and Denmark. Light from North-East on the southern shores of the Baltic, and also at some of the Spanish stations; North-Westerly over eastern Germany; somewhat variable, but chiefly Northerly, in Italy and Algeria. No important change occurring later, but wind veering to the Northward of West on some parts of our western coasts, and shifting to the Eastward in the north of Scotland.

Barometer highest, 30·1 ins. and upwards in a large anticyclone covering the greater part of France, Germany, the Baltic, and the north of Spain, and extending southwards across the Mediterranean to central Algeria, as well as in a smaller system lying over the north of Russia. Lowest, 29·8 ins. and less in a depression lying over the north and west of Scotland. New disturbance beginning to form later over the northern parts of our Islands and barometer falling slightly over the entire Kingdom. Anticyclone over Continent becoming reduced both in size and height.

Wednesday, 22nd July.

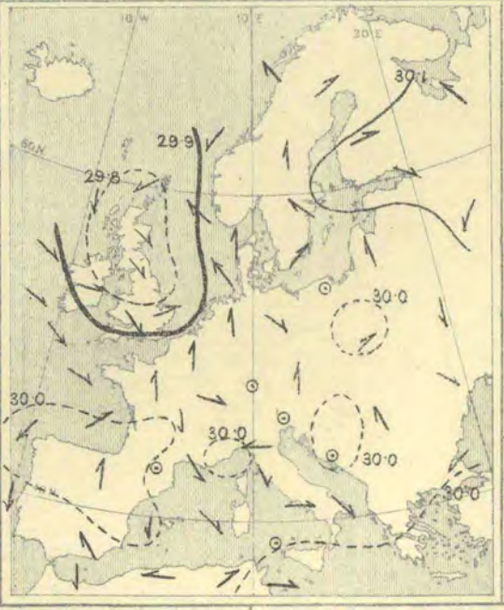
Temperature and Weather.

8 a.m.

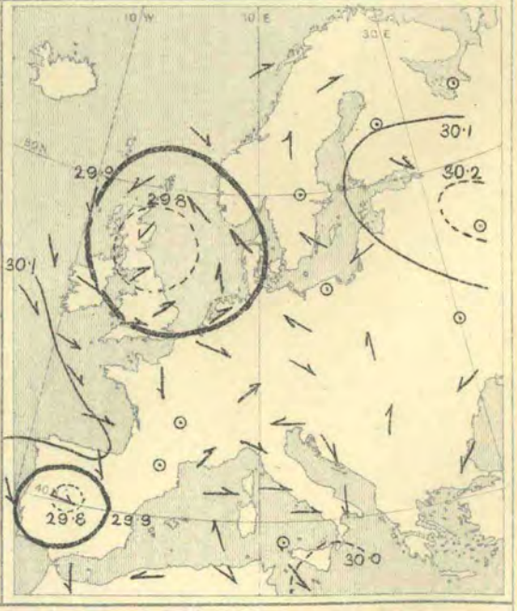


Barometer and Wind.

8 a.m.



6 p.m.



Weather showery over England and Ireland, and foggy in the north of Scotland. Fine at most of the Continental stations, but rainy at Paris, and also at Buda-Pesth. Thunderstorms occurring later in several parts of England and France, with heavy rain in many parts of north-western and western Europe. Lunar halo seen at Prawle Point.

Temperature, in morning, highest, 85° at Barcelona and Palma, 82° at Leghorn, and 79° at Algiers; above 75° at many of the Adriatic and Mediterranean stations, and above 70° over Sweden, the Baltic, and central Finland. Lowest, 55° at Shields, Holyhead, and Liverpool, and 56° at Sumburgh Head, Nairn, York, Malin Head, Donaghadee, and Pembroke; below 60° in many parts of the United Kingdom and some parts of Austria. Daily maxima over our Islands below 70°, excepting in London, exceeding 75° in Germany, exceeding 80° in the south of France, exceeding 90° in Italy and Algeria, and touching 104° at Laghouat and 115° at Biskra.

Wind light to fresh from the North-Westward in the west and north of our Islands and the north-west of France, and from West over the eastern parts of the Channel. Light from the South-Westward over the Netherlands and east of England, Southerly or South-Easterly over Scandinavia, Denmark, Germany, and the Baltic. Variable over southern and eastern Europe, with Algeria and the Mediterranean. No important change occurring later, except over Spain, where a separate cyclonic circulation was developed.

Barometer highest, 30·1 ins. and upwards in two anticyclones lying respectively over northern Russia and over the south-west of France and the greater part of Spain. Lowest, 29·8 ins. and less in a large shallow depression lying over Scotland and the north of England. Depression subsequently moving slowly south-eastwards and partially filling up, barometer rising in all parts of the United Kingdom, a new anticyclone appearing over the Bay of Biscay and a depression over Spain.

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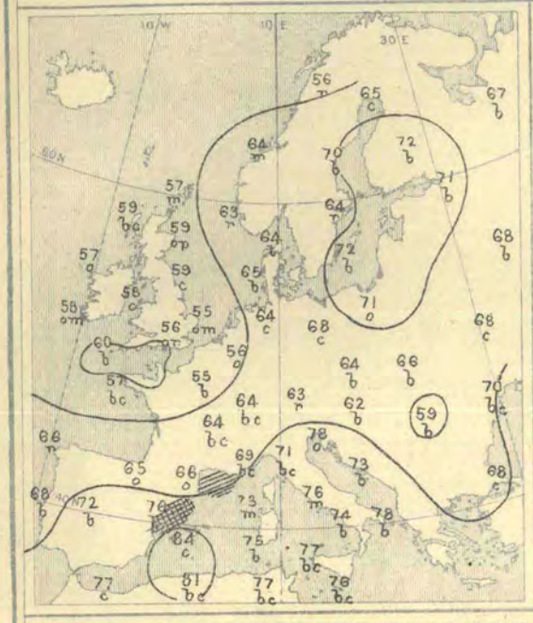
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 23rd July.

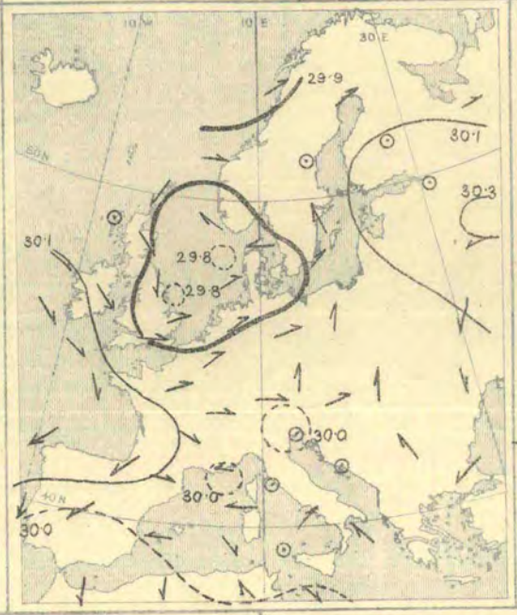
Temperature and Weather.

8 a.m.

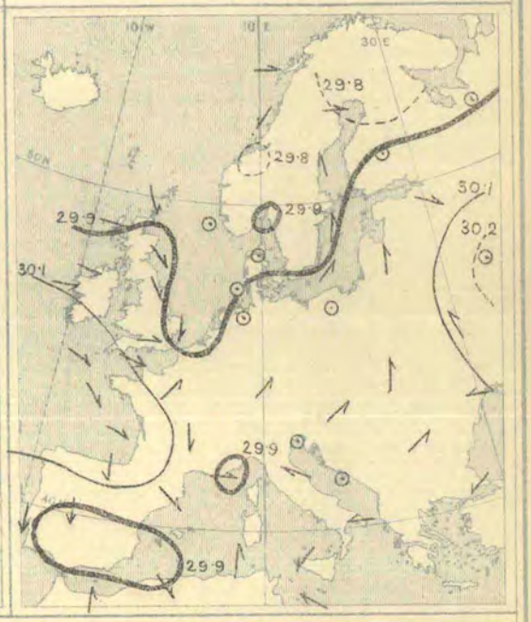


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over France and the Bay of Biscay, as well as over Russia, south-eastern Europe, and some parts of Sweden; cloudy more or less, and unsettled, elsewhere, with rain over many parts of Great Britain, the North Sea, at Bodö, Copenhagen, and Stockholm. Some rain later in many parts of the British Islands, western, central, and northern Europe, and a large amount on the eastern shores of the North Sea, where thunder and lightning occurred during the day.

Temperature very low for time of year over western and north-western Europe, but not in the north-east, east, and south. Morning readings exceeding 70° at the Mediterranean stations, on the shores of the Black Sea, and in many parts of Russia; much lower elsewhere. Below 60° over the United Kingdom, and as low as 52° at Parsonstown, 54° at Wick, and 55° at Nairn, Malin Head, Liverpool, Oxford, Yarmouth, and Paris. Not touching 70° at any of our own stations later, but exceeding 80° in the southern parts of France, 90° in some parts of Italy and over Algeria.

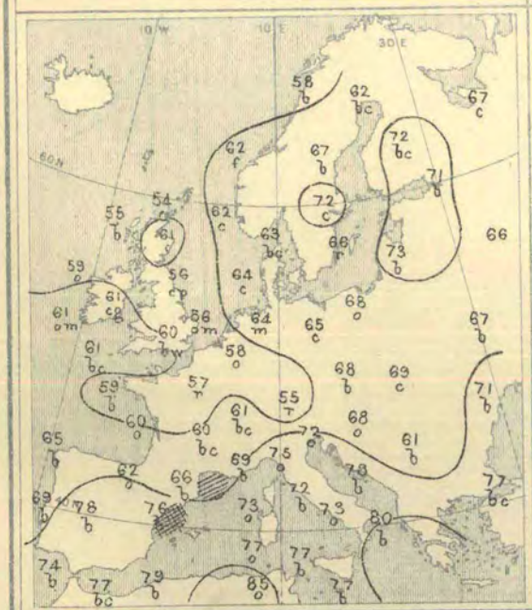
Wind moderate from between West and North over the United Kingdom, North-Westerly to Westerly over France and north Germany, Southerly to South-Easterly over the Baltic and south of Scandinavia. Very variable elsewhere and of very little strength. Backing to Westward at our northern stations later, and decreasing in force over the British Islands generally.

Barometer highest, (1) 30·3 ins. to 30·0 ins. over Russia generally (highest of all near Moscow); 30·1 ins. and more over the Bay of Biscay, the western parts of the United Kingdom, France, and the north of Spain. Lowest, 29·8 ins. to 29·9 ins. over the North Sea and north-east of England, and rather below 29·9 ins. over Finmark and neighbouring parts of Atlantic; rather below 30·0 ins. over the Riviera and northern extremity of the Adriatic. Beginning to fall again slightly on our northern coasts later, but rising slightly over England.

Friday, 24th July.

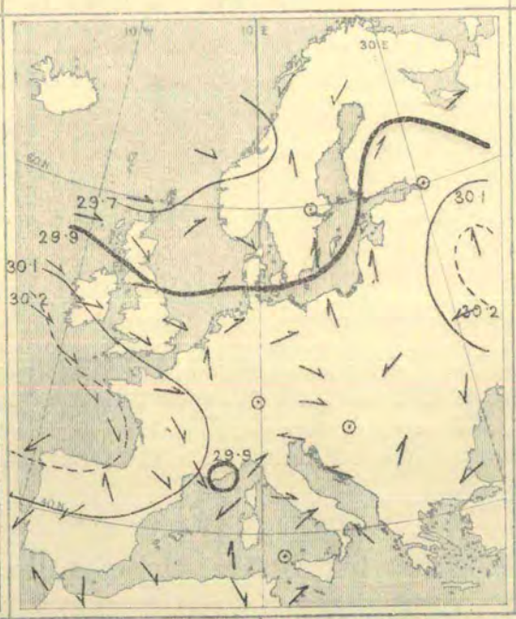
Temperature and Weather.

8 a.m.

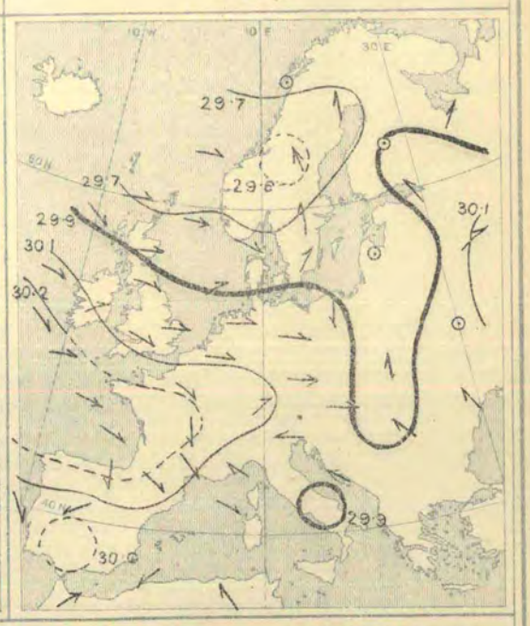


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over Russia, south-eastern and south-western Europe, and on the southern shores of the Mediterranean; less fair elsewhere, cloudy or overcast at many stations, and rainy in some parts of the British Islands and France. Heavy rain later in the west of Norway and on the southern shores of the Baltic; showers in other parts of Scandinavia and Germany, thunder at Nice.

Temperature still low for the time of year, except over Finland. Morning readings exceeding 80° at Algiers, La Calle, and Brindisi, exceeding 70° at most Mediterranean stations, at Constantinople, and in some parts of northern Europe; below 60° on many of our own coasts, and lowest of all, 54° at Sumburgh Head, 55° at Stornoway and Nairn, 56° at Shields and Yarmouth, 57° at Paris. Touching 70° over our midland counties later, exceeding that value over Scandinavia, Germany, and the southern parts of France, and reaching 82° at Nice and in some parts of Sweden, and 90° at Lisbon. (Reports from Italy and the greater part of Spain not received.)

Wind light or moderate generally; North-Westerly to Westerly over the British Islands and Bay of Biscay, North-Easterly over Spain, Westerly to Southerly over Germany, Scandinavia, and the Baltic; very variable elsewhere. Freshening from West in the south of Norway later, and from South-South-East at Hernösand, and blowing a moderate gale from North-West at Toulon.

Barometer highest, 30·2 ins. and more to 30·0 ins. over Russia and south-eastern Europe, 30·2 ins. to 30·1 ins. over the Bay of Biscay, Spain, France, and the south-western part of the British Islands. Lowest, 29·7 ins. and less in a shallow depression off the west of Norway; below 30·0 ins. over north Germany and the Baltic Provinces, and below 29·9 ins. in a small disturbance over the Gulf of Genoa. Rising slowly over the British Islands and western Europe later, falling over the Baltic and Russia.

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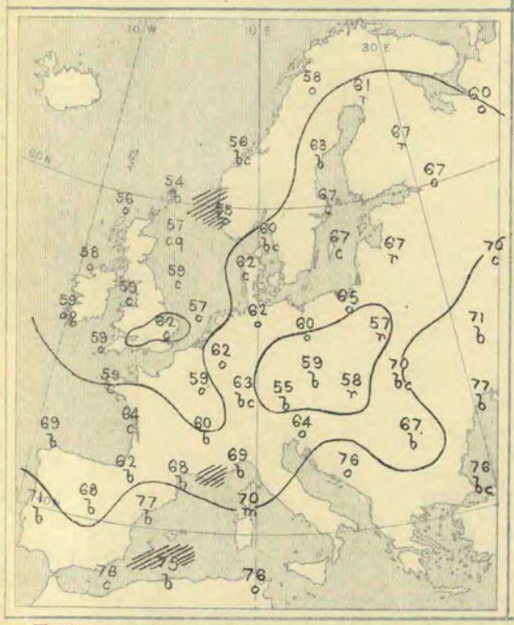
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 25th July.

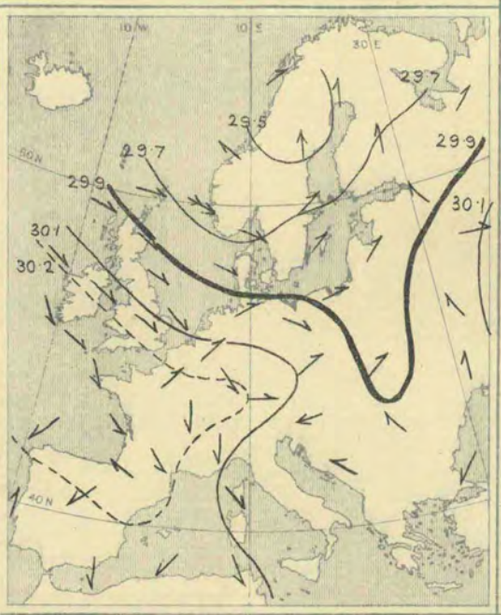
Temperature and Weather.

8 a.m.

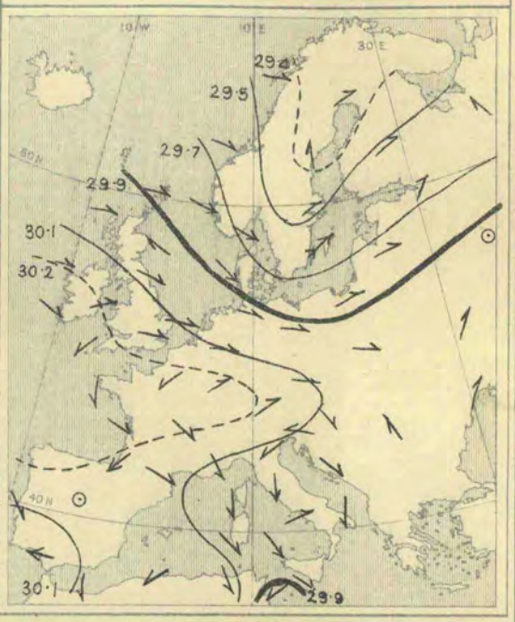


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright both over south-eastern Europe and the Spanish Peninsula; fair, as a whole, over France, the United Kingdom, and central Russia—but dull in many localities—changeable and unsettled elsewhere, with rain at several of the northern and central European stations, haze over the northern parts of the Mediterranean. A good deal of rain later over northern Europe, and a little in the north of our Islands, in Germany, Poland, and Hungary.

Temperature rather low for time of year. Morning readings exceeding 70° at many of the south-eastern and southern stations (82° at Aumale), but below 60° over the greater part of our Islands and Norway, and as low as 54° at Sumburgh Head and Wick, 57° at Aberdeen, Malin Head, Yarmouth, and Warsaw, 58° at Nairn, Belmullet, and Spurn Head, and also at Vienna and Cracow. Rising later to a little above 70° in some parts of the British Islands and Germany, to 80° and more in the southern parts of France, in Spain, and Italy, and to between 90° and 100° over Algeria.

Wind Westerly to North-Westerly over the British Islands and North Sea (strong at the northern stations), Westerly over Germany, South-Westerly over the Baltic, Southerly over Finland and the Gulf of Bothnia. North-Easterly to Northerly over Switzerland, the south of France, and Spain, Northerly over Algeria. Falling light in our Islands later, but blowing strongly in Norway.

Barometer highest, 30·2 ins. and more to 30·0 ins. over western and central Europe, and over the Atlantic; also 30·1 ins. to 30·0 ins. over Russia. Lowest, 29·5 ins. and less in a depression over the northern half of Scandinavia, and 30·0 ins. to 29·9 ins. and less in another over the Adriatic, Italy, and Corsica; 29·9 ins. and less in a secondary system over Hungary and Poland. Rising on our north and east coasts all day, but beginning to fall in the south-west and over the Bay of Biscay.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows: –b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 170.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	32·1	?	28	?	EASTBOURNE				
OSWALDKIRK (Yorkshire)	34·7	?	31	?	TORQUAY	34·9 *	?	32 *	?
WORKSOP	29·0	−7·0	26	−7	ARLEY COTTAGE (County Cavan)	29·3	?	26	?
THURCASTON (Leicestershire)	33·4	−3·5	30	−4	GUERNSEY	53·5	?	50	?

* The values at Torquay are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 30.] *Third Series.* WEEK ENDING SATURDAY, 1ST AUGUST, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 176.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	67	43	58·9	48·0	53·1	2 below.	78	− 4	0	0	1121	+152	621	+ 79
	1. SCOTLAND, EAST -	71	44	62·4	48·1	54·8	2 below.	90	−15	0	0	1258	− 27	670	+101
	2. ENGLAND, N.E. - -	74	41	62·9	48·9	55·4	4 below.	94	−21	0	0	1248	− 90	593	+ 95
	3. ENGLAND, EAST -	73	41	63·7	47·7	55·2	6 below.	92	−35	0	0	1484	−102	689	+128
	4. MIDLAND COUNTIES	74	40	63·5	48·2	55·3	4 below.	93	−29	0	0	1510	− 79	668	+116
	5. ENGLAND, SOUTH -	78	41	65·3	49·9	57·1	5 below.	106	−26	0	0	1616	− 97	565	+149
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	70	44	62·8	49·7	55·8	2 below.	97	− 6	0	0	1406	+ 86	463	+ 46
	7. ENGLAND, N.W. -	67	44	61·0	51·2	55·8	3 below.	97	−17	0	0	1427	+ 12	449	+ 35
	8. ENGLAND, S.W. -	78	40	64·1	50·7	57·0	2 below.	105	−14	0	0	1537	− 58	434	+118
	9. IRELAND, NORTH -	69	46	61·4	51·5	56·2	2 below.	99	− 6	0	0	1473	+ 43	391	+ 29
	10. IRELAND, SOUTH -	68	48	63·1	52·6	57·5	2 below.	109	− 5	0	0	1668	+ 30	309	+ 31
	— CHANNEL ISLANDS -	75	51	63·7	54·5	58·8	3 below.	118	−13	0	0	1744	− 9	162	+ 40

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 176.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	5	9	2 more.	130	− 7	25·2	+ 0·1	23	−14	21	−12	831	+ 43	29	+ 1
	1. SCOTLAND, EAST -	3	3	4 less.	90	−21	12·0	− 4·8	37	− 1	33	− 3	890	− 11	32	0
	2. ENGLAND, N.E. - -	3	7	1 more.	90	−13	10·7	− 3·0	33	− 2	30	− 1	841*	+ 23	30	0
	3. ENGLAND, EAST -	6	12	6 more.	101	0	12·4	− 1·4	35	− 8	32	− 9	899	− 86	32	− 4
	4. MIDLAND COUNTIES-	4	6	0 (average)	94	− 6	13·0	− 2·4	29	−10	27	− 9	875	+ 6	32	0
	5. ENGLAND, SOUTH -	5	12	6 more.	89	− 8	13·0	− 1·5	40	− 3	37	− 5	1012	+ 77	37	+ 3
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	2	1	7 less.	96	−22	15·5	−10·4	49	+13	45	+13	951	+ 64	34	+ 2
	7. ENGLAND, N.W. - -	4	5	2 less.	89	−19	13·2	− 4·3	34	− 3	31	− 3	861	− 9	31	− 1
	8. ENGLAND, S.W. - -	4	5	3 less.	94	−17	16·6	− 4·0	44	0	42	+ 1	1068	+ 44	39	+ 1
	9. IRELAND, NORTH -	5	4	4 less.	111	−16	13·4	− 5·7	23	− 6	21	− 4	894	+ 69	32	+ 2
	10. IRELAND, SOUTH -	4	2	5 less.	100	−17	15·4	− 5·6	24	−11	22	−10	963	+ 20	35	+ 1
	— CHANNEL ISLANDS -	5	4	2 less.	96	−22	13·3	− 3·3	52	− 2	50	− 1	1312	+131	48	+ 5

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has remained in a very changeable and inclement state, especially over England, where frequent thunderstorms have occurred, with heavy local falls of rain.

Temperature has been below the mean in all districts. In the western and northern parts of the Kingdom the deficit has not amounted to more than two or three degrees, but in "England S." it has been as much as 5°, while in "England E." it has reached 6°. The highest readings were observed on the 26th July, excepting in the north of Scotland, where they occurred during the latter part of the week; in Ireland, the north of Scotland, and the north-west of England the thermometer did not reach 70°, but in the "Channel Islands" it rose to 75°, while in "England S." and "England S.W." it reached 78°. During the middle of the week the maximum readings were below 60° over a considerable portion of the United Kingdom. The lowest readings occurred mainly between the 28th and 30th, when the thermometer fell to between 40° and 45° in nearly all parts of Great Britain. In Ireland, however, the absolute minima varied between 46° and 48°, while in the "Channel Islands" the thermometer did not fall below 51°.

Rainfall has been considerably more than the mean in the eastern and southern parts of England, and slightly more in "Scotland N." and "England N.E.," but less in all other districts, excepting the "Midland Counties," where the normal was just reached.

Bright Sunshine has been less than the mean in all districts, excepting "Scotland W." and "England S.W.," the percentage of the possible amount of duration varying from 21 in "Scotland N." and "Ireland N.," and 22 in "Ireland S.," to 45 in "Scotland W." and 50 in the "Channel Islands."

Barometer and Wind.—The anticyclone which lay over the southern parts of our Islands at the close of last week gave way on the 26th, and in the course of the ensuing night a shallow depression advanced from the west of France to our south-east coasts. At the same time cyclonic systems of greater depth began to appear off our north coasts, and during the remainder of the week the weather was influenced mainly by these latter disturbances, the centres passing in a south-easterly direction down our east coasts and the North Sea. The prevailing winds were, therefore, North-Westerly, and on the 27th and 28th a slight gale blew in the north of Scotland.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 175 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	60	45	55·7	46·9	51·0	− 1·9	63	0	5	2·25	+1·66	*	*	*	*
	Stornoway	61	44	55·9	46·7	51·0	− 3·4	63	0	7	0·62	−0·09	15·6	−14·8	14	−12
	Wick	64	43	59·0	46·3	52·2	− 3·0	71	0	3	1·02	+0·45	*	*	*	*
	Lairg ℌ	65	45	58·9	48·0	53·1	− 2·2	78	0	5	0·82	+0·14	*	*	*	*
	Glencarron ℌ												*	*	*	*
	Fort Augustus ℌ	67	46	62·1	49·6	55·4	− 1·3	94	0	6	0·38	−0·32	22·5	?	20	?
	Fort William ℌ	67	48	61·6	50·7	55·8	− 0·8	97	0	2	0·65	−0·62	31·8	?	28	?
1. SCOTLAND, E.	Nairn	66	45	61·7	48·0	54·4	− 2·9	87	0	5	0·41	−0·21	*	*	*	*
	Aberdeen	67	44	60·3	48·3	53·9	− 3·1	83	0	5	0·51	−0·18	33·6	− 3·2	30	− 3
	Braemar ℌ	66	44	59·3	46·8	52·6	− 2·1	74	0	4	0·31	−0·45	34·3†	? †	30†	?†
	Ochtertyre ℌ	71	45	66·6	47·7	56·5	− 0·7	102	0	2	0·10	−0·70	*	*	*	*
	Leith ℌ	68	46	65·3	50·3	57·3	− 1·7	107	0	2	0·28	−0·32	*	*	*	*
	Marchmont ℌ	67	44	61·0	47·7	53·9	− 2·9	84	0	2	0·27	−0·54	38·5	?	34	?
2. ENGLAND, N.E.	Alnwick Castle	69	46	62·3	49·7	55·6	− 2·0	95	0	3	0·20	−0·51	*	*	*	*
	Durham	74	41	65·1	47·6	55·7	− 3·9	96	0	2	0·75	+0·10	32·3	− 4·5	29	− 4
	Shields	70	45	62·3	48·3	54·8	− 3·2	90	0	2	0·59	−0·10	*	*	*	*
	Scarborough ℜ	69	44	62·1	48·7	54·9	− 4·3	90	0	3	1·65	+0·94	*	*	*	*
	York	72	43	64·1	46·9	54·9	− 4·7	90	0	3	0·69	+0·07	37·5	+ 2·3	34	+ 1
	Spurn Head	69	49	61·4	51·9	56·3	− 3·6	100	0	4	0·55	+0·15	*	*	*	*
3. ENGLAND, E.	Hillington ℜ	72	41	64·1	45·5	54·2	− 6·2	85	0	7	1·22	+0·52	35·3	− 7·7	32	− 9
	Yarmouth	67	46	61·9	50·1	55·6	− 5·0	95	0	6	1·38	+0·69	*	*	*	*
	Geldeston	72	44	63·7	48·2	55·4	− 5·2	94	0	6	1·09	+0·56	34·0	−12·0	31	−12
	Cambridge	72	43	65·3	47·3	55·7	− 5·7	96	0	6	0·88	+0·35				
	Rothamsted	73	43	63·6	47·4	54·9	− 5·3	90	0	6	1·21	+0·61	34·6	− 9·4	32	− 8
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	71	46	65.3	48·7	56·4	− 3·9	101	0	3	1·02	+0·40	*	*	*	*
	Loughborough	69	46	64·1	50·1	56·7	− 4·7	103	0	4	0·56	+0·03	*	*	*	*
	Stamford (Ketton Hall)												*	*	*	*
	Cheadle ℜ	65	44	60·8	48·1	54·0	− 4·0	84	0	4	0·40	−0·34	*	*	*	*
	Churchstoke ℜ	69	43	61·3	45·6	52·9	− 5·1	76	0	5	0·51	−0·13	23 6	−15·5	22	−14
	Hereford ℜ	74	44	65·7	48·0	56·2	− 4·1	99	0	4	0·17	−0·38	*	*	*	*
	Cirencester	74	40	63·7	47·3	54·9	− 4·5	90	0	5	1·12	+0·42	37·0	− 4·0	34	− 5
	Oxford	74	44	63·7	49·6	56·2	− 4·8	99	0	6	0·59	+0·01	34·5	− 8·3	32	− 7
5. ENGLAND, S.	London	76	45	65·4	49·9	57·1	− 5·2	106	0	6	1·11	+0·58	35·5 †	− 3·8†	33†	− 4†
	Strathfield Turgiss ℜ	78	41	67·0	46·9	56·3	− 5·2	100	0	7	1·54	+1·02	*	*	*	*
	Dungeness	66	45	63·9	49·0	55·9	− 6·0	97	0	6	1·44	+0·99	*	*	*	*
	Hastings (St. Leonards)	67	44	63·2	49·8	56·0	− 6·0	98	0	6	0·73	+0·17	40·7	− 8·6	38	− 8
	Southampton	76	48	67·0	51·5	58·7	− 3·6	117	0	6	1·44	+0·82	36·7	− 9·6	34	−11
	Hurst Castle	70	50	66·1	53·0	59·1	− 2·6	120	0	4	1·00	+0·50	*	*	*	*
	Stowell ℜ	74	45	64·6	49·2	56·4	− 3·0	101	0	3	0·93	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)												*	*	*	*
	Glasgow	69	47	64·2	50·0	56·6	− 0·6	102	0	2	0·09	−0·77	47·8	+19·1	43	+18
	Ardrossan	70	47	62·1	51·3	56·3	− 1·6	100	0	0	—	−0·72	*	*	*	*
	Glenlee ℌ	66	44	63·1	46·8	54·4	− 2·1	87	0	3	0·29	−0·74	*	*	*	*
	Douglas (Isle of Man)	68	48	61·8	50·6	55·8	− 1·5	97	0	2	0·16	−0·63	50·8	+ 9·9	46	+ 8
7. ENGLAND, N.W.	Newton Reigny	67	44	61·4	48·0	54·2	− 2·8	85	0	4	0·52	−0·23	30·8	− 4·2	28	− 5
	Stonyhurst	65	46	60·1	49·9	54·7	− 3·7	89	0	5	0·35	−0·74	31·8	− 3·0	29	− 3
	Blackpool ℜ	64	50	61·4	53·1	57·0	− 2·5	105	0	2	0·43	−0·35	36·2	− 2·8	33	− 2
	Manchester	67	48	60·5	50·0	54·9	− 3·5	90	0	5	0·38	−0·52	*	*	*	*
	Liverpool Obsy. (Bidston)	67	50	61·3	52·6	56·7	− 3·1	103	0	4	1·02	+0·32	*	*	*	*
	Llandudno ℜ	67	51	61·6	52·2	56·6	− 3·5	102	0	2	0·37	−0·28	36·4	+ 0·3	33	0
	Holyhead	67	51	60·6	52·4	56·2	− 2·7	99	0	3	0·72	+0·12	*	*	*	*
8. ENGLAND, S.W.	Llandovery	78	40	66·7	47·0	56·2	− 3·0	99	0	5	0·39	−0·62	*	*	*	*
	Pembroke	66	52	61·0	53·4	56·9	− 1·9	104	0	2	0·08	−0·54	38·5	− 6·4	36	− 6
	Arlington (N. Devon)	70	46	63·0	49·7	55·9	− 2·7	97	0	4	0·61	−0·51	*	*	*	*
	Cullompton ℜ	72	44	65·8	49·4	57·0	− 2·6	105	0	3	0·35	−0·31	39·7	+ 0·7	37	0
	Falmouth	66	52	62·3	53·6	57·7	− 2·4	110	0	4	0·48	−0·37	54·2	+ 9·3	51	+ 6
	Plymouth															
	Prawle Point	70	49	65·9	51·3	58·1	− 1·4	113	0	4	0·93	+0·39	*	*	*	*
9. IRELAND, N.	Malin Head	64	46	58·3	50·4	54·1	− 3·3	85	0	5	0·25	?	*	*	*	*
	Londonderry	65	48	62·1	51·6	56·5	− 1·5	102	0	6	0·44	−0·40	*	*	*	*
	Mullaghmore	63	51	60·3	52·4	56·1	− 2·2	99	0	4	0·52	−0·37	*	*	*	*
	Belmullet	63	51	59·9	53·1	56·3	− 2·2	100	0	7	0·40	?	*	*	*	*
	Markree Castle	66	49	60·8	51·6	55·9	− 0·8	97	0	6	0·48	−0·26	19·6	− 8·9	18	−10
	Brookeborough	68	46	61·9	50·3	55·7	− 1·2	96	0	4	0·46	−0·42	*	*	*	*
	Armagh	68	47	64·1	50·6	56·9	− 1·6	104	0	4	0·43	−0·32	27·2	− 0·8	25	0
	Donaghadee	69	52	62·7	54·0	58·1	+ 0·8	113	0	2	0·20	−0·54	*	*	*	*
	Edgeworthstown	67	47	62·9	49·6	55·8	− 1·7	97	0	4	0·14	−0·71	*	*	*	*
10. IRELAND, S.	Dublin	67	49	63·1	52·6	57·5	− 2·2	109	0	3	0·17	−0·43	24·8	−10·4	23	−12
	Parsonstown	66	49	63·6	52·1	57·5	− 1·1	109	0	4	0·10	−0·60	24·9	− 7·2	23	− 5
	Kilkenny	68	49	63·6	51·9	57·3	− 1·1	107	0	2	0·08	−0·54	*	*	*	*
	Waterford	68	48	65·5	50·9	57·7	− 1·8	110	0	3	0·16	−0·56	*	*	*	*
	Roche's Point	65	50	63·1	52·6	57·5	− 2·3	109	0	1	0·08	−0·67	*	*	*	*
	Valencia	65	52	62·4	53·9	57·9	− 0·8	111	0	5	0·25	−0·72	22·5	−12·5	21	−12
	Killarney	67	50	61·6	52·5	56·7	− 1·7	103	0	5	0·37	?	*	*	*	*
	Foynes	64	52	61·8	54·4	57·8	− 0·8	111	0	5	0·34	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	65	52	62·1	54·9	58·3	− 2·3	114	0	5	0·27	−0·32	*	*	*	*
	Jersey	75	51	65·3	54·1	59·3	− 3·4	121	0	5	0·44	−0·07	52·2	− 1·8	50	0

Stations marked ℜ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

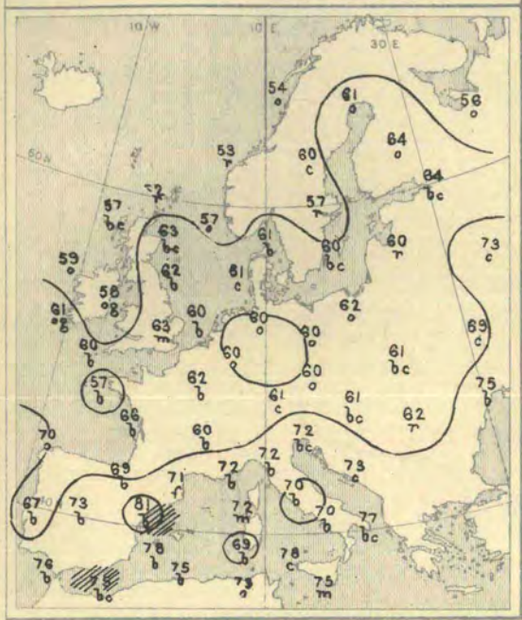
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

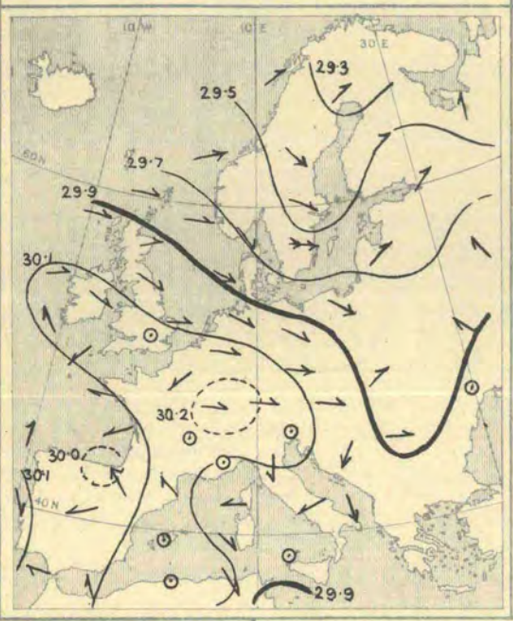
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 26th July.

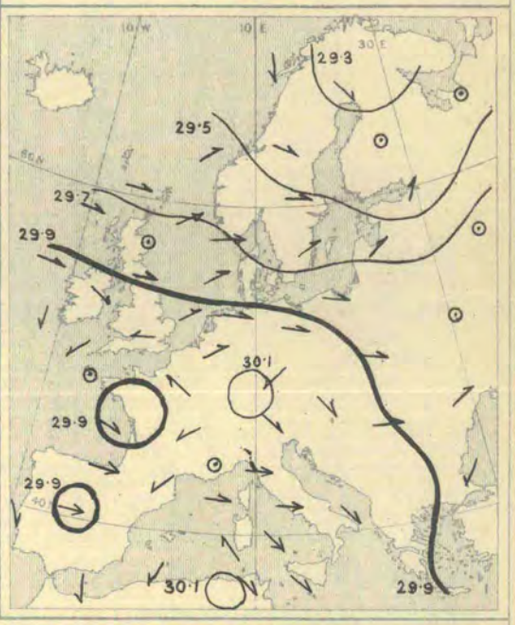
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the Mediterranean, Spain, and France, and over the major part of Great Britain; very changeable and unsettled elsewhere. Rain falling in some parts of Ireland, Germany, and Norway, as well as over the Baltic; haze prevalent in some portions of England. Thunderstorms occurring at many of the French stations.

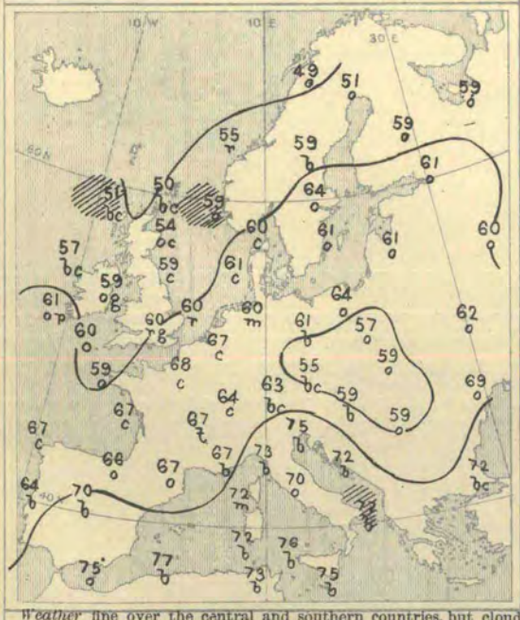
Temperature in our Islands not very different from the average for the time of year. Morning readings exceeding 70° at most stations over the southern and south-eastern countries and over central Russia, and exceeding 60° over the greater part of the United Kingdom, France, Germany, and Denmark. Lowest, 52° at Sumburgh Head, 53° at Christiansund, 54° at Bodö, 56° at Archangel, 58° at Nairn, Malin Head, and Roche's Point. Rising later to between 70° and 76° over England, to 80° or more over central France, to 99° at Biarritz and Biskra, and to 100° at Rochefort and Madrid.

Wind moderate to light from the Westward on our north and east coasts, fresh on eastern side of the North Sea and in Germany, a gale over the Baltic; South-Westerly, moderate to light, over Finland; very variable over southern Europe. Becoming very variable on our south-western coasts later, and shifting to Eastward over our eastern counties. No important change occurring elsewhere.

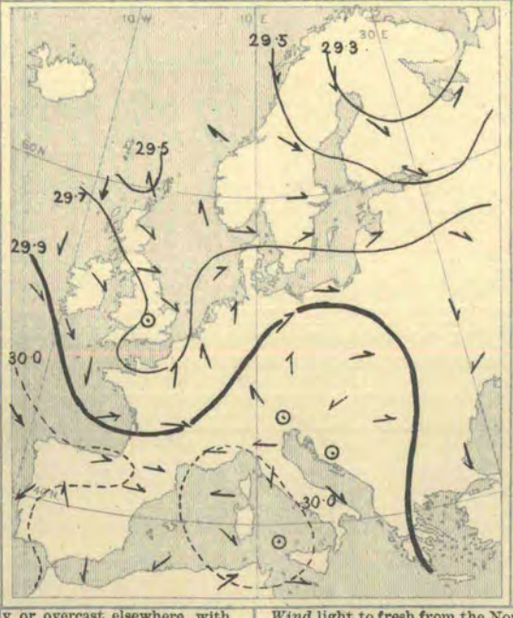
Barometer highest, 30·2 ins. over Switzerland and south Germany, and ranging between 30·2 ins. and 30·0 ins. over France, Germany, England, Ireland, and the greater part of the Mediterranean. Lowest, 29·4 ins. to rather below 29·3 ins. in depressions over the Gulf of Bothnia and Lapland, and below 29·9 ins. over Poland. Some shallow disturbances off our south-western coasts and over the Bay of Biscay; falling throughout western Europe during day, and shallow disturbances appearing over central Spain and the west of France.

Monday, 27th July.

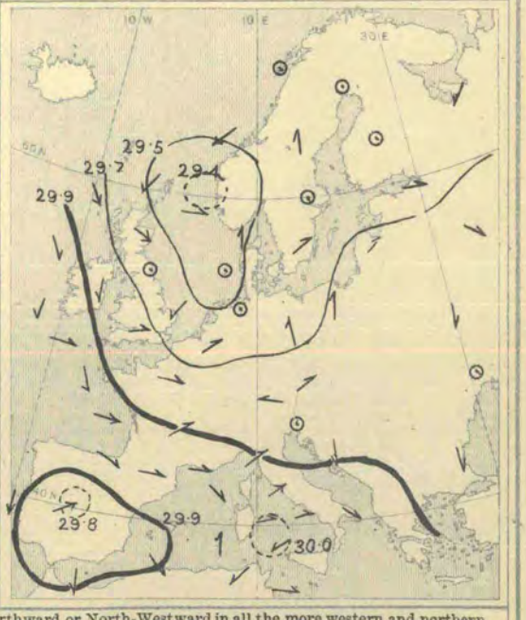
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the central and southern countries, but cloudy or overcast elsewhere, with passing showers in the west and north of our Islands; heavy rain in the south-east of England, and thunder at times. Heavy rain falling during day at many of our eastern and south-eastern stations, and also in Denmark and the extreme north of Scotland, the largest amounts being 2·0 ins. at Sittingbourne, 1·3 ins. at Skagen, 1·2 ins. at Sumburgh Head. Thunderstorms continuing in the south-east of England; heavy rain setting in during day at some of the German stations.

Temperature highest, 78° at Barcelona, 77° at Brindisi and Algiers, 76° at Palermo, and 75° at Nemours, Oran, and Malta; above 70° at nearly all the Mediterranean and Adriatic stations. Lowest, 48° at Nairn, 49° at Bodö, 50° at Sumburgh Head and Wick, and 51° at Haparanda, Ulcaborg, and Stornoway; below 60° in nearly all parts of the United Kingdom, as well as in Austria and eastern Germany. Daily maxima below 70° in our Islands generally, and below 60° in the extreme north and north-west, but thermometer reaching 80° or more at several of the French and Italian stations, and exceeding 90° over Algeria and central Spain.

Wind light to fresh from the Northward or North-Westward in all the more western and northern parts of the United Kingdom, and also in the western part of the Spanish Peninsula, but light from the North-Eastward in the south-east of England. Moderate from the Westward in the west of France, Southerly over Denmark, Germany, and the Netherlands, South-Easterly in the west of Norway. Light to fresh from West or North-West over Sweden, the Baltic, and northern Russia, light from North in the south of Russia; variable, but chiefly Northerly, in Italy and Algeria. Moderate North-Westerly gale springing up later in the north of Scotland.

Barometer highest, 29·9 ins. to 30·0 ins., or a little above, in a large area covering the whole of central and southern Europe and the Mediterranean, and extending northwards over the Bay of Biscay to the south-west of Ireland. Lowest, 29·3 ins. and less in a large depression over northern Russia; 29·5 ins. and less in a smaller disturbance lying to the northward of the Shetlands; 29·7 ins. and less in a very shallow system lying off the south-east of England. Depression in neighbourhood of Shetlands subsequently moving eastwards to the south-west of Norway; shallow disturbance off our south-east coasts moving north-eastwards to North Sea.

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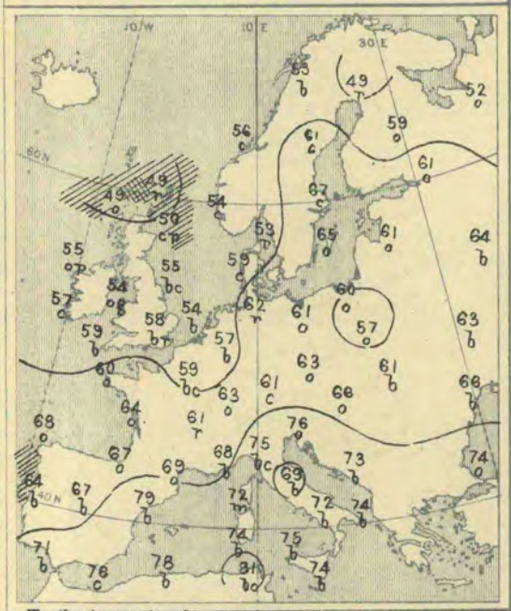
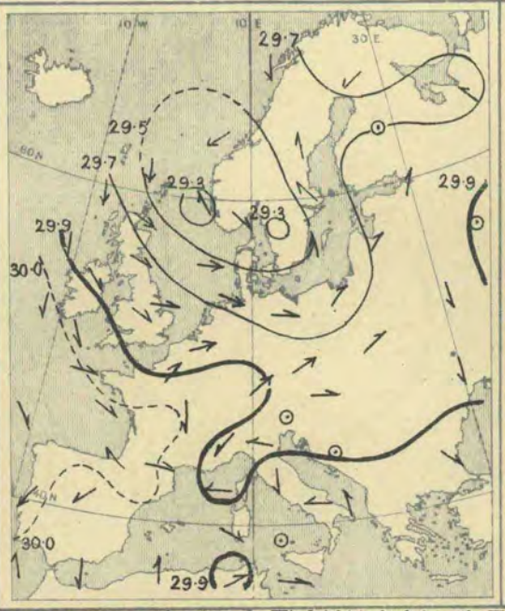
Tuesday, 28th July.

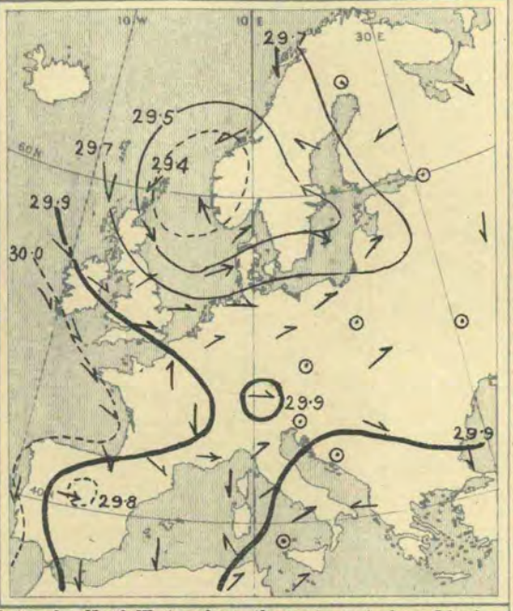
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine over the greater part of England, as well as over southern and eastern Europe, the Mediterranean, and Algeria. Cloudy or overcast elsewhere, with steady rain in Scotland and Denmark, and passing showers in the north of Ireland. Heavy rain falling during day in the north and north-west of our Islands, and showers in most other parts of western Europe. Thunderstorms occurring at some of the French and German stations.

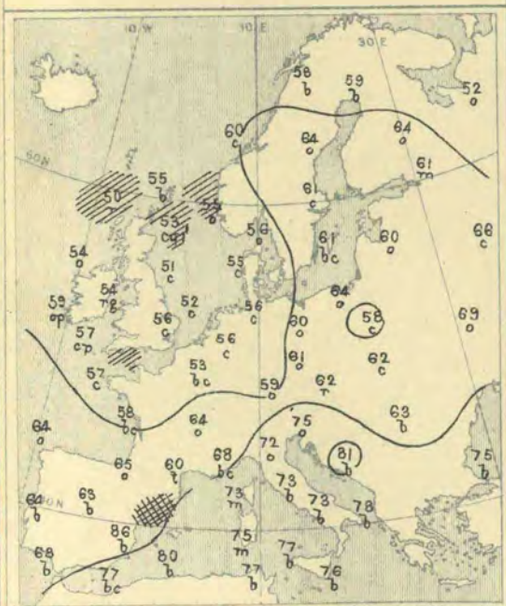
Temperature highest, 84° at Aumale, 81° at La Calle, 79° at Barcelona, and 78° at Algiers; above 70° at most of the Mediterranean and Adriatic stations, and above 65° in the south of Sweden. Lowest, 49° at Haparanda, Sumburgh Head, Stornoway, and Wick, 50° at Nairn and Aberdeen, and 51° at Malin Head; below 55° in many parts of our Islands, and below 60° over the whole of the United Kingdom, the North Sea, Norway, Denmark, and the Netherlands. Daily maxima below 60° at most of our western and northern stations, and below 65° in other parts of the United Kingdom. Thermometer rising to 70° or more in many parts of France, to 80° or more in the south of that country, and to 90° or more in Algeria, central Spain, and the south of Italy.

Wind light to fresh from the Westward or North-Westward over the greater part of our Islands as well as in Denmark and the west of France, but strong to a gale from the Northward in the extreme north of Scotland. Fresh or strong from the South-Westward over Germany and the Netherlands, light from the Southward or South-Eastward over the Baltic; Easterly in the west of Norway. Light from the Northward in the south of Russia; variable over Italy, Algeria, and the Mediterranean. No important change occurring during day.

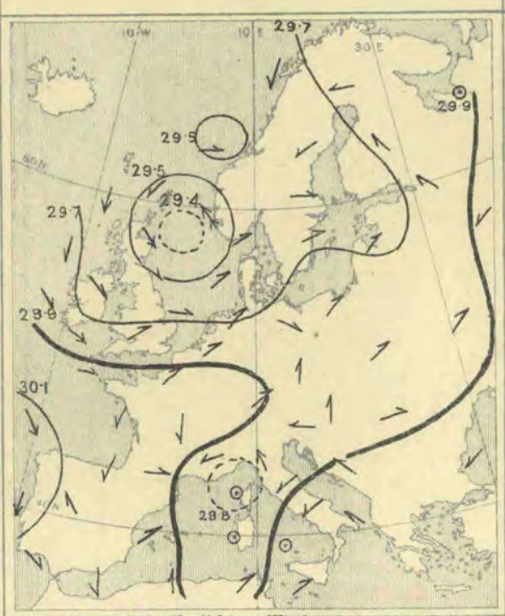
Barometer highest, 30·0 ins. and upwards in an anticyclone spreading from the Atlantic over the Bay of Biscay, the south-west of France, the north of Spain, and the extreme south-west of Ireland. Lowest, 29·3 ins. and less in two small depressions—one lying near Gottenberg, and the other between the Shetlands and west of Norway. Former disturbance subsequently travelling slowly to the eastward; latter system moving very slightly in a south-westerly direction over the North Sea.

Wednesday, 29th July.

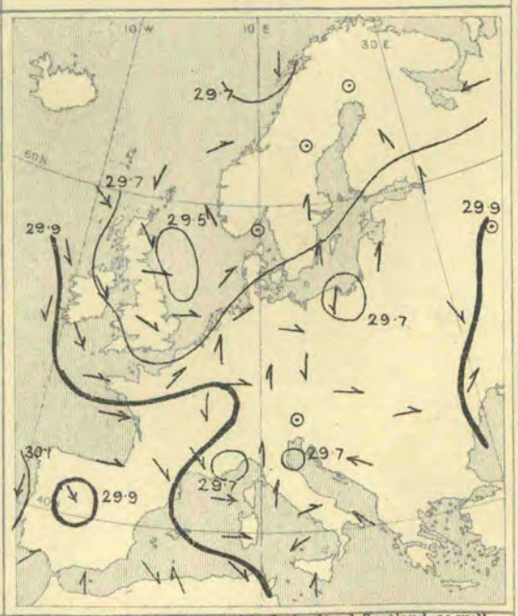
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather cloudy or overcast in all but the southern countries, with rain at several of the English and German stations, as well as at Helsingfors, Faerder, and Stornoway. Thunderstorm reported in morning at Perpignan. Showers falling during day in nearly all parts of western Europe, and thunderstorms occurring over England and the south of France. Heavy rain occurring in Austria and the north of Italy.

Temperature highest, 81° at Lésina, 80° at Algiers, 78° at Brindisi, and 77° at Oran, Palermo, and La Calle; above 70° in most parts of southern Europe. Lowest, 50° at Stornoway and Liverpool, 51° at Leith and Shields, and 52° at Archangel, Spurn Head, Malin Head, and Yarmouth; below 55° in all the more northern and eastern parts of the United Kingdom, and below 60° in the south-west, as well as at many of the French and German stations. Thermometer over our Islands remaining below 65° all day, excepting at Leith, where it reached 67°. Exceeding 70° at several of the French stations, exceeding 80° over southern Europe generally, and reaching 90° in many parts of Italy.

Wind moderate to fresh from the Northward or North-Westward in Ireland and Scotland, as well as over the Bay of Biscay and the western parts of the Spanish Peninsula. Westerly or South-Westerly over England, the Netherlands, north Germany, and the Baltic; strong in force at the Channel stations. South-Easterly over Finland and the south of Norway, Easterly or North-Easterly in the north of Scandinavia. Variable in Austria, light from the Eastward in Italy, Southerly in Algeria. Westerly wind subsequently increasing to a gale in Straits of Dover; no important change elsewhere.

Barometer highest, 30·1 ins. and upwards in an anticyclone extending from the Atlantic over the western parts of the Iberian Peninsula. Lowest, 29·4 ins. and less in a well-marked depression lying between the coasts of Scotland and Norway, 29·5 ins. and less in another disturbance lying off the west of Norway, 29·8 ins. and less in a shallow system lying over the Gulf of Genoa. Depression over North Sea moving slowly in a south-south-westerly direction during day; barometer rising over the northern parts of our Islands. Shallow disturbance appearing over central Spain in evening.

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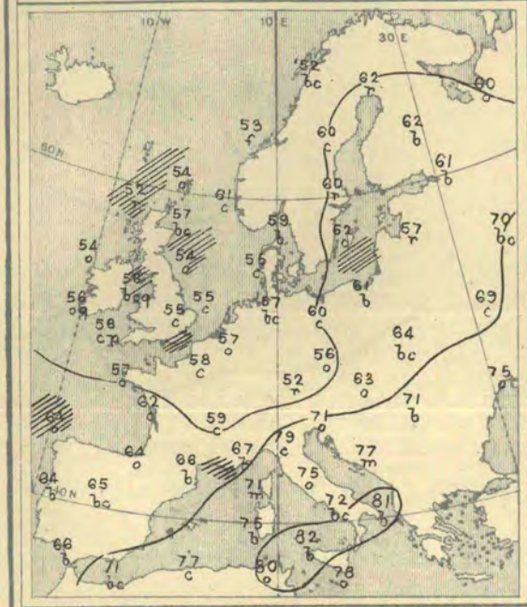
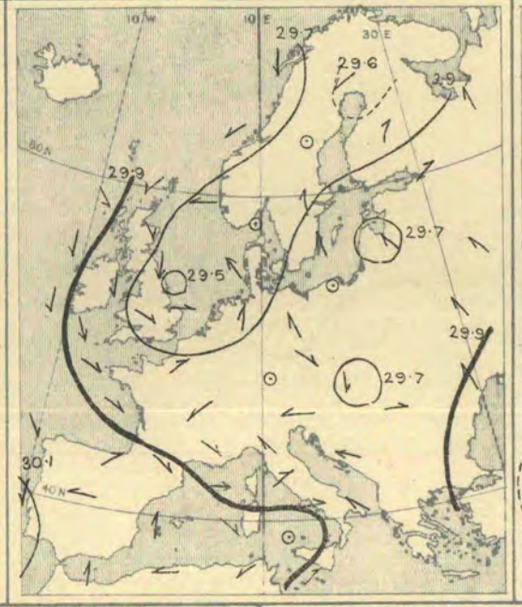
Thursday, 30th July.

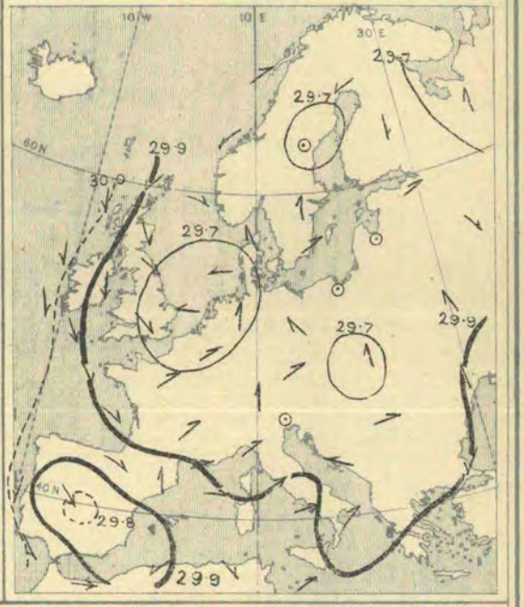
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather cloudy and changeable over nearly the whole of central and north-western Europe, with rain in many parts of Great Britain, as well as in western and southern Germany, and some parts of Finland and Sweden. Fine over the southern countries, and also in Russia. Showers falling during the day over the whole of Great Britain, Germany, and France, and thunderstorms occurring at several of the English, as well as at one or two of the German stations.

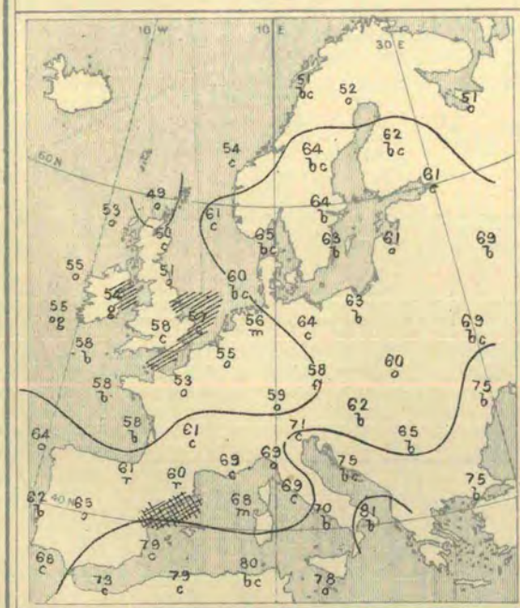
Temperature highest, 82° at Malta, 81° at Brindisi and Sfax, 80° at La Calle, and 78° at Palma; above 70° over southern and eastern Europe generally, but below that point over Spain and the south of France. Lowest, 52° at Bodö, Stornoway, Wick, and Munich, and 53° at Christiansund, Malin Head, and Loughborough; below 55° in many parts of the United Kingdom, and below 60° over central France and western and southern Germany. Daily maxima below 65° in nearly all parts of our Islands, and below 60° at several of the coast stations, but thermometer exceeding 70° over central France, and exceeding 80° in the south of that country. Rising to 90° or more in various parts of southern Europe, the highest reading of all being 95° at Brindisi.

Wind moderate from North-East in Norway, and moderate to strong from North or North-West over our Islands and the western parts of France and Spain, light from South-West or South over the Netherlands and central France. South-Easterly over Denmark and the south of Sweden. Chiefly Westerly or South-Westerly in Italy, light from the Southward in Russia, variable over Austria and south Germany. No important change occurring later.

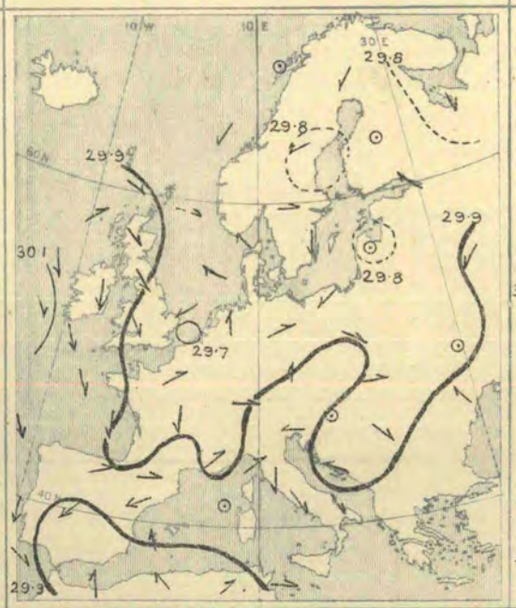
Barometer highest, 30·1 ins. and upwards in an anticyclone lying to the south-westward of the Spanish Peninsula; 29·9 ins. and upwards over the Black Sea and the south of Russia. Lowest, 29·5 ins. and less in a well-marked depression lying off the east of England; 29·6 ins. and less in another system lying over the northern part of the Gulf of Bothnia; 29·7 ins. and less in three small disturbances lying respectively over the Baltic Provinces, central Russia, and the Gulf of Genoa. Depression off our east coasts subsequently moving slowly southward and partially filling up.

Friday, 31st July.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

Weather fine in the extreme south of our Islands, and also in Sweden, Denmark, Russia, Italy, and Algeria. Cloudy or overcast elsewhere, with rain over the central parts of Ireland and England, as well as in the south of France and the north-east of Spain. Rain falling later over the Netherlands, Germany, the south-east of England, and the greater part of France, but sky clearing in the east and north-east of our Islands. Thunderstorms occurring over north Germany and also at Lyons.

Temperature, highest, 83° at Sfax, 81° at Brindisi, 80° at La Calle, and 79° at Palma and Algiers; above 70° at most of the Mediterranean and Adriatic Stations, as well as in the south of Russia. Lowest, 49° at Sumburgh Head and Wick, 50° at Nain and Aberdeen, and 51° at Bodö, Archangel, Shields, and Parsonstown; below 55° in many parts of the United Kingdom. Daily maxima below 60° in the north of our Islands, and below 65° at all but the extreme southern stations, but thermometer exceeding 70° in some parts of France, and exceeding 80° in many parts of southern Europe.

Wind moderate or fresh from the Northward or North-Westward over the greater part of our Islands, as well as over the Bay of Biscay and Spain, but light from the South-Westward in the Hebrides. Light from the South-Westward to the east of France, from South or South-Eastward over Denmark and Germany, and from the North-Eastward over the greater part of Scandinavia. Very variable over Russia and Austria, but chiefly North-Westerly in Italy and South-Easterly in Algeria. Subsequently backing to the Westward over all the more northern parts of the United Kingdom. No important change occurring elsewhere.

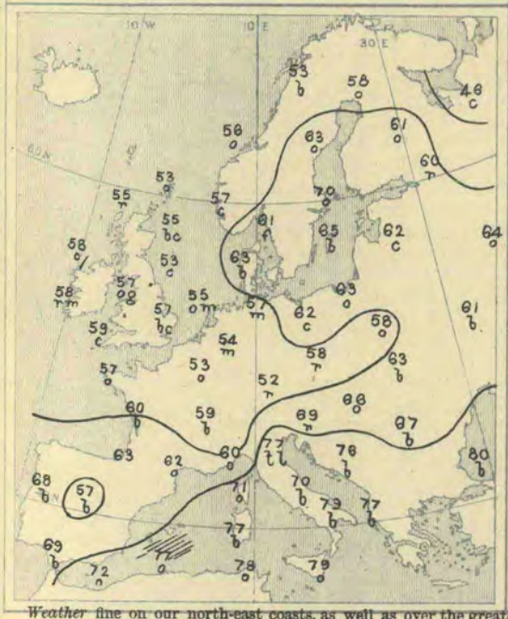
Barometer highest, 30·1 ins. and upwards, in an anticyclone extending from the Atlantic over the south-west of Ireland. Lowest, 29·7 ins. and less in a small depression lying over Holland, and 29·8 ins. and less in three other systems lying respectively over the Gulf of Bothnia, the Baltic Provinces, and the north of Russia. Depression over Holland, subsequently moving slowly eastwards and filling up, but new disturbance beginning to approach our extreme north and north-west coasts from the westward.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 1st August.

Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.

Barometer and Wind. — 6 p.m.

Weather fine on our north-east coasts, as well as over the greater part of southern and eastern Europe. Cloudy or overcast elsewhere, with rain in many parts of Germany and Austria, as well as at St. Petersburg, Stornoway, and Valencia Island, and a thunderstorm at Leghorn. Showers falling later in the south-west, west, and extreme north of our Islands, and thunderstorms occurring over western Germany.

Temperature highest, 80° at Constantinople, 79° at Naples and Malta, and 78° at La Calle; above 70° over the greater part of southern Europe and the Mediterranean, and just reaching that point at Stockholm. Lowest, 52° at Munich, 53° at Bodö, Sumburgh Head, Shields, and Paris, and 54° at Oxford and Brussels; below 60° in nearly all parts of the United Kingdom, as well as over France, central Spain, and the greater part of Germany. Daily maxima below 70° over nearly the whole of our Islands, but thermometer exceeding that point in France, and rising to between 80° and 90° in many parts of southern Europe. Highest readings of all, 95° at Brindisi and 93° at Cagliari.

Wind light from the Southward or South-Westward over the northern parts of our Islands, but Westerly or North-Westerly over England, Ireland, and France, and North-Easterly in Spain. Light from South-West in Germany, from South-East in Denmark, and from North-East in Finland and the north of Sweden. Chiefly Northerly over Italy and the south of Russia, but variable in Austria, and Southerly or South-Westerly in Algeria. Subsequently backing to the South-Westward in many parts of England.

Barometer highest, 30·1 ins. and upwards in an anticyclone lying over the Bay of Biscay, the west and south-west of France, and the north of Spain; 30·0 ins. and upwards over the south of Russia. Lowest, 29·8 ins. and less in a depression lying over the north of Scotland, and also in another system lying between St. Petersburg and Moscow. Former disturbance subsequently spreading southwards over all the more northern parts of the United Kingdom; latter system partially filling up.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

At the beginning of the week a large anticyclone extended northwards from the Mediterranean over France, Switzerland, south Germany, and the greater part of England and Ireland, while a well-marked depression existed over Lapland. On the night of the 26th, however, the high-pressure system partially broke up, and a small depression, which was originally formed over the west of France, moved north-eastwards to the south-east of our Islands, occasioning thunderstorms and heavy rain in many parts of England. On reaching the coasts of Holland the depression filled up, but the advance of two other disturbances from the north-westward served to keep the weather over western Europe in a very unsettled state. The first of these systems skirted the north of Scotland on the 27th, and afterwards travelled away to the south of Sweden, where it rapidly filled up; the second appeared off the south-west of Norway on the morning of the 28th, and subsequently moved very slowly in a south-south-westerly direction over the North Sea, the system eventually dispersing over the Netherlands on the 31st. In the meantime a new anticyclone had appeared off the west coasts of our Islands, so that North-Westerly or Northerly winds and cool showery weather were experienced in all the western countries. On the 27th and 28th a slight gale from the North-Westward was experienced in the north and north-east of Scotland. At the close of the week a fresh disturbance was spreading from the westward over the northern parts of the United Kingdom, while further shallow depressions were appearing over Denmark, Germany, and northern Russia; and unsettled weather continued to prevail in all the northern and north-western countries.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 176.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	40·9	?	37	?	EASTBOURNE	45·8	?	43	?
OSWALDKIRK (Yorkshire)	29·9	?	27	?	TORQUAY	44·2 *	?	42 *	?
WORKSOP	23·5	−12·4	22	−11	ARLEY COTTAGE (County Cavan)	22·4	?	20	?
THURCASTON (Leicestershire)	26·8	−10·0	25	−10	GUERNSEY	46·2	?	44	?

* The values at Torquay are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 31.] *Third Series.* WEEK ENDING SATURDAY, 8TH AUGUST, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 182.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH	69	42	60·0	49·1	54·3	1 below.	86	+ 4	0	0	1205*	+152	621	+ 79
1. SCOTLAND, EAST	71	36	63·4	49·7	56·2	1 below.	99	− 6	0	0	1357	− 33	670	+101
2. ENGLAND, N.E.	70	43	63·3	50·9	56·7	2 below.	103	−11	0	0	1351	−104	593	+ 95
3. ENGLAND, EAST	72	41	65·8	49·0	56·9	4 below.	104	−22	0	0	1588	−127	689	+128
4. MIDLAND COUNTIES	72	40	64·4	48·9	56·2	4 below.	99	−21	0	0	1609	−105	668	+116
5. ENGLAND, SOUTH	73	43	65·4	51·1	57·8	4 below.	111	−21	0	0	1727	−123	565	+149
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST	68	47	62·7	52·2	57·2	0 (average)	106	+ 4	0	0	1510*	+ 84	463	+ 46
7. ENGLAND, N.W.	67	45	61·9	51·9	56·6	2 below.	102	−11	0	0	1529	− 3	449	+ 35
8. ENGLAND, S.W.	71	38	63·2	50·1	56·3	3 below.	100	−19	0	0	1637	− 81	434	+118
9. IRELAND, NORTH	68	43	61·8	52·1	56·7	1 below.	103	− 2	0	0	1576	+ 35	391	+ 29
10. IRELAND, SOUTH	70	43	63·0	50·6	56·5	3 below.	102	−12	0	0	1770	+ 12	309	+ 31
— CHANNEL ISLANDS	67	49	63·5	53·7	58·3	4 below.	114	−18	0	0	1858	− 29	162	+ 40

Rainfall.

DISTRICTS. (See p. 182.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH	6	14	5 more.	136	− 5	26·7*	+ 0·7
1. SCOTLAND, EAST	6	10	3 more.	96	−18	13·0	− 4·5
2. ENGLAND, N.E.	5	9	3 more.	95	−10	11·6	− 2·7
3. ENGLAND, EAST	5	8	3 more.	106	+ 3	13·2	− 1·1
4. MIDLAND COUNTIES	5	7	1 more	100*	− 2	13·8*	− 2·2
5. ENGLAND, SOUTH	4	7	2 more.	93	− 6	13·7	− 1·4
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST	5	11	1 more.	101	−21	16·7*	−10·1
7. ENGLAND, N.W.	4	14	7 more.	93	−18	14·6	− 3·6
8. ENGLAND, S.W.	4	9	1 more.	98	−16	17·5	− 3·9
9. IRELAND, NORTH	5	7	1 less.	116	−15	14·1	− 5·8
10. IRELAND, SOUTH	5	15	7 more.	105	−15	16·9	− 4·9
— CHANNEL ISLANDS	4	8	3 more.	100	−20	14·1	− 3·0

Bright Sunshine.

DISTRICTS. (See p. 182.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH	22	+ 1	20	+ 1	853	+ 41	29	+ 1
1. SCOTLAND, EAST	26	+ 2	24	+ 1	916	− 24	31	− 2
2. ENGLAND, N.E.	20	−16	19	−14	861	+ 8	30	0
3. ENGLAND, EAST	35	− 6	33	− 9	932*	− 92	32	− 4
4. MIDLAND COUNTIES	32	− 7	31	− 6	907	− 1	32	0
5. ENGLAND, SOUTH	40	− 4	37	− 7	1052*	+ 74	37	+ 2
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST	33	− 3	31	− 1	984	+ 58	34	+ 2
7. ENGLAND, N.W.	27	−10	25	− 9	893	− 23	31	− 1
8. ENGLAND, S.W.	45	+ 1	43	+ 3	1113	+ 43	39	+ 1
9. IRELAND, NORTH	22	− 7	21	− 6	916	+ 60	32	+ 2
10. IRELAND, SOUTH	27	− 8	26	− 8	990	+ 12	34	0
— CHANNEL ISLANDS	55	0	54	0	1367	+122	48	+ 4

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has continued in a very unseasonable condition generally. Frequent falls of rain, occasionally accompanied by thunder and lightning, have occurred in all districts, and the intervals of clear sky have been (excepting in the extreme south-west) very brief.

Temperature has just equalled the mean in "Scotland W.," but has again been below it in all other parts of the Kingdom. Over central, southern, and eastern England, and in the "Channel Islands" the deficit has been as much as 4°. The highest of the maxima, which were registered either on the 2nd or 8th, ranged from 73° in "England S." to 67° in "England N.W." and the "Channel Islands." The lowest of the minima, which were recorded on somewhat irregular dates, varied from 36° in "Scotland E." and 38° in "England S.W." to 47° in "Scotland W." and 49° in the "Channel Islands."

Rainfall has been considerably in excess of the mean over the Kingdom generally, but in "Ireland N." a slight deficit is shown.

Bright Sunshine has been less than the mean in nearly all districts, the deficit being greatest in the northern and eastern parts of England. The percentage of the possible amount of duration ranged from 54 in the "Channel Islands" and 43 in "England S.W." to 37 in "England S.," 21 in "Ireland N.," and 19 in "England N.E."

Barometer and Wind.—During nearly the whole of this period the barometer has been influenced by depressions from the Atlantic passing over our Islands in an easterly or south-easterly direction. The winds have varied between West and North-West or North, and, though generally light or moderate in force, have occasionally increased to a strong breeze or moderate gale at the coast stations.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 181 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	60	43	56·1	47·7	51·7	− 0·3	68	0	5	1·51	+0·87	*	*	*	*
	Stornoway	65	45	59·0	49·3	53·9	− 0·3	83	0	5	0·64	−0·14	29·5	+ 0·5	27	+ 1
	Wick	66	48	60·7	49·7	54·9	− 0·1	90	0	5	0·62	+0·04	*	*	*	*
	Lairg ℌ	68	43	61·7	47·6	54·2	− 0·9	85	0	7	0·78	+0·12	*	*	*	*
	Glencarron ℌ	63	42	59·9	48·0	53·6	− 1·0	81	0	6	1·92	+0·43	*	*	*	*
	Fort Augustus ℌ	69	44	61·8	50·4	55·8	− 0·7	97	0	6	1·92	+1·22	21·1	?	19	?
	Fort William ℌ	64	44	61·1	50·9	55·7	− 0·8	96	0	5	2·33	+1·05	16·2	?	15	?
1. SCOTLAND, E.	Nairn	69	46	62·4	49·7	55·7	− 1·3	96	0	6	0·57	−0·05	*	*	*	*
	Aberdeen	68	47	63·0	50·7	56·5	− 0·4	102	0	6	1·16	+0·46	36·9	+ 0·5	34	0
	Braemar ℌ	66	36	60·8	47·7	53·9	− 0·6	83	0	5	1·49	+0·69	21·8†	? †	20†	? †
	Ochtertyre ℌ	68	42	66·6	50·4	58·0	+ 0·9	112	0	6	0·99	+0·19	*	*	*	*
	Leith	71	49	65·6	51·7	58·2	− 0·6	113	0	6	1·32	+0·73	*	*	*	*
	Marchmont ℌ	68	43	62·1	48·0	54·6	− 2·0	88	0	6	0·40	−0·40	21·8	?	20	?
2. ENGLAND, N.E.	Alnwick Castle	69	47	63·1	51·4	56·9	− 0·5	104	0	5	1·08	+0·38	*	*	*	*
	Durham	69	48	65·1	50·7	57·5	− 1·4	109	0	5	1·05	+0·42	18·9	−17·3	18	−15
	Shields	67	49	62·4	50·7	56·2	− 1·8	99	0	6	0·84	+0·16	*	*	*	*
	Scarborough ℳ	70	48	63·1	51·6	57·0	− 2·0	105	0	4	1·09	+0·40	*	*	*	*
	York	68	43	63·3	48·4	55·4	− 4·0	94	0	6	0·31	+0·31	19·8	−15·0	19	−14
	Spurn Head	69	51	62·9	52·4	57·3	− 2·4	107	0	5	0·38	−0·03	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	71	41	66·3	49·0	57·1	− 3·1	106	0	6	1·24	+0·57	32·3	− 9·8	30	−12
	Yarmouth	70	46	63·7	50·7	56·8	− 3·7	104	0	4	0·78	+0·17	*	*	*	*
	Geldeston	71	42	66·0	48·7	56·8	− 3·6	104	0	4	1·40	+0·95	36·0	− 9·0	34	− 9
	Cambridge	72	43	68·0	48·3	57·6	− 3·6	109	0	5	0·19	−0·33	36·2	− 5·8	34	− 9
	Rothamsted	72	43	65·0	48·4	56·2	− 3·8	99	0	5	0·54	−0·04	35·7	?	34	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	72	42	63·9	49·3	56·2	− 3·6	99	0	6	0·60	0·00	*	*	*	*
	Loughborough	71	43	65·9	50·0	57·5	− 3·6	109	0	6	0·32	−0·22	*	*	*	*
	Stamford (Ketton Hall)	72	41	67·0	47·0	56·3	− 4·9	100	0	5	0·57	?	*	*	*	*
	Cheadle ℳ	66	46	61·7	49·3	55·1	− 2·8	92	0	6	1·09	+0·34	*	*	*	*
	Churchstoke ℳ	66	42	62·6	48·4	55·1	− 2·9	92	0	4	0·69	+0·06	29·2	− 9·6	28	− 9
	Hereford ℳ	69	40	64·8	49·3	56·6	− 3·6	102	0	4	0·58	+0·03	*	*	*	*
	Cirencester	66	40	63·6	47·9	55·3	− 3·9	93	0	4	1·01	+0·31	47·9	+ 6·9	46	+ 6
	Oxford	69	46	65·4	49·9	57·2	− 3·7	106	0	4	0·53	−0·03	44·2	+ 2·0	42	+ 2
5. ENGLAND, S.	London	72	46	67·0	50·9	58·5	− 3·8	116	0	5	1·06	+0·54	35·1 †	− 3·6†	31†	− 6†
	Strathfield Turgiss ℳ	73	43	68·4	48·8	57·9	− 3·4	111	0	5	0·54	+0·03	*	*	*	*
	Dungeness	67	49	64·3	52·7	58·2	− 3·7	113	0	4	0·63	+0·18	*	*	*	*
	Hastings (St. Leonards)	68	50	62·9	52·0	57·1	− 5·0	106	0	4	1·28	+0·72	43·4	− 4·6	41	− 5
	Southampton	71	48	67·3	50·9	58·6	− 3·7	116	0	4	0·41	−0·21	37·2	− 9·0	35	−10
	Hurst Castle	67	50	65·4	53·7	59·2	− 2·5	120	0	4	0·21	−0·29	*	*	*	*
	Stowell ℳ	66	44	62·7	48·7	55·3	− 4·1	93	0	4	0·87	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	63	50	61·9	53·8	57·6	+ 0·7	109	0	7	1·46	+0·26	*	*	*	*
	Glasgow	67	50	63·2	51·7	57·1	+ 0·2	106	0	5	1·09	+0·23	29·8	+ 0·8	27	+ 1
	Ardrossan	67	51	62·0	52·7	57·1	− 0·8	106	0	5	1·20	+0·40	*	*	*	*
	Glenlee ℌ	66	47	63·2	50·7	56·6	+ 0·2	102	0	5	0·61	−0·42	*	*	*	*
	Douglas (Isle of Man)	68	48	63·4	52·2	57·5	+ 0·4	109	0	3	1·03	+0·23	36·1	− 3·9	34	− 4
7. ENGLAND, N.W.	Newton Reigny	65	45	61·9	50·0	55·6	− 0·8	95	0	5	0·84	+0·11	23·5	− 9·9	22	−10
	Stonyhurst	65	46	61·7	50·7	55·9	− 2·3	97	0	6	2·83	+1·85	22·5	−11·5	21	−11
	Blackpool ℳ	64	47	61·1	52·3	56·4	− 3·1	101	0	3	1·54	+0·79	27·1	−10·7	25	−10
	Manchester	65	48	61·1	51·0	55·8	− 2·7	97	0	6	1·65	+0·77	*	*	*	*
	Liverpool Obsy. (Bidston)	67	50	62·7	52·9	57·5	− 2·2	109	0	3	0·76	+0·08	*	*	*	*
	Llandudno ℳ	65	50	62·3	53·0	57·4	− 2·5	108	0	3	1·48	+0·86	35·0	− 0·9	33	− 2
	Holyhead	65	51	62·7	53·4	57·8	− 1·3	111	0	3	0·90	+0·28	*	*	*	*
8. ENGLAND, S.W.	Llandovery	71	38	65·7	47·3	56·0	− 3·2	98	0	6	1·62	+0·60	*	*	*	*
	Pembroke	67	49	61·4	53·1	57·0	− 1·9	105	0	2	0·77	+0·14	48·3	+ 3·1	46	+ 3
	Arlington (N. Devon)	65	43	61·9	48·7	54·9	− 3·5	90	0	3	1·43	+0·31	*	*	*	*
	Cullompton ℳ	67	43	64·3	48·5	55·9	− 3·6	97	0	4	0·50	−0·13	33·4	− 6·8	32	− 7
	Falmouth	66	50	62·6	51·7	56·8	− 3·5	104	0	4	0·90	+0·06	57·9	+11·9	56	+10
	Plymouth															
	Prawle Point	67	48	63·4	51·3	57·1	− 2·5	106	0	3	0·03	−0·49	*	*	*	*
9. IRELAND, N.	Malin Head	62	50	58·7	52·7	55·5	− 1·9	95	0	5	0·52	?	*	*	*	*
	Londonderry	67	47	63·3	51·9	57·3	− 0·7	107	0	5	0·71	−01·4	*	*	*	*
	Mullaghmore	63	51	60·7	53·6	56·9	− 1·5	104	0	5	0·50	−0·38	*	*	*	*
	Belmullet	61	51	59·9	53·7	56·6	− 2·2	102	0	6	0·49	?	*	*	*	*
	Markree Castle	67	47	61·8	51·4	56·3	− 0·4	100	0	5	0·82	+0·04	25·1	− 3·9	23	− 5
	Brookeborough	65	43	61·8	50·2	55·7	− 1·1	96	0	5	0·78	−0·06	*	*	*	*
	Armagh	67	45	63·0	50·0	56·1	− 1·5	99	0	5	0·46	−0·26	17·9	− 9·3	17	− 8
	Donaghadee	68	53	63·9	53·7	58·5	+ 1·1	116	0	5	0·99	+0·27	*	*	*	*
	Edgeworthstown	66	45	62·7	52·1	57·1	− 0·2	106	0	5	0·63	−0·20	*	*	*	*
10. IRELAND, S.	Dublin	67	49	63·8	52·7	57·9	− 1·8	111	0	4	1·65	+1·04	28·5	− 7·3	27	− 9
	Parsonstown	67	45	63·6	50·0	56·4	− 2·1	101	0	5	1·27	+0·55	20·8	−11·8	20	− 9
	Kilkenny	67	45	63·0	50·0	56·1	− 2·4	99	0	4	0·97	+0·29	*	*	*	*
	Waterford	70	45	65·6	48·1	56·3	− 3·3	100	0	5	1·13	+0·38	*	*	*	*
	Roche's Point	69	49	62·6	51·0	56·5	− 3·2	102	0	4	1·18	+0·43	*	*	*	*
	Valencia	64	50	62·4	53·1	57·5	− 1·3	109	0	5	1·27	+0·27	31·6	− 3·7	30	− 5
	Killarney	65	43	60·9	47·5	53·8	− 4·7	83	0	6	1·96	?	*	*	*	*
	Foynes	65	48	62·2	52·5	57·1	− 1·5	106	0	6	2·15	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	66	51	62·3	53·7	57·7	− 3·0	110	0	4	0·54	−0·02	*	*	*	*
	Jersey	67	49	64·6	53·7	58·8	− 4·0	118	0	4	1·06	+0·56	55·3	+ 0·5	54	+ 1

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

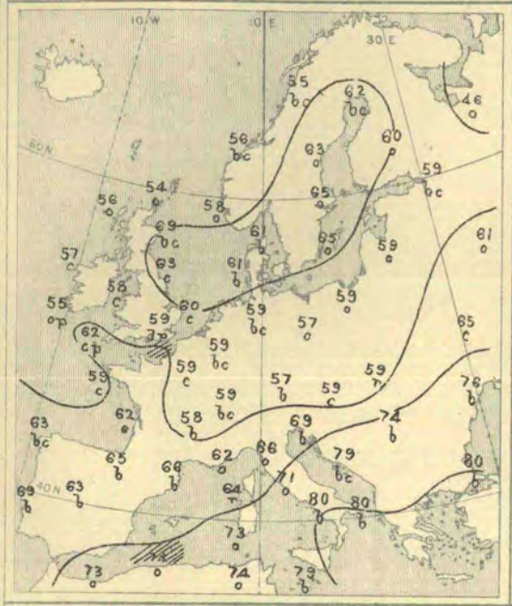
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 2nd August.

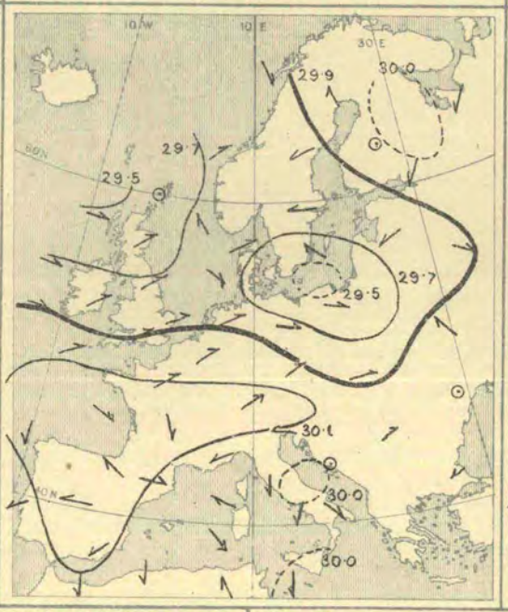
Temperature and Weather.

8 a.m.

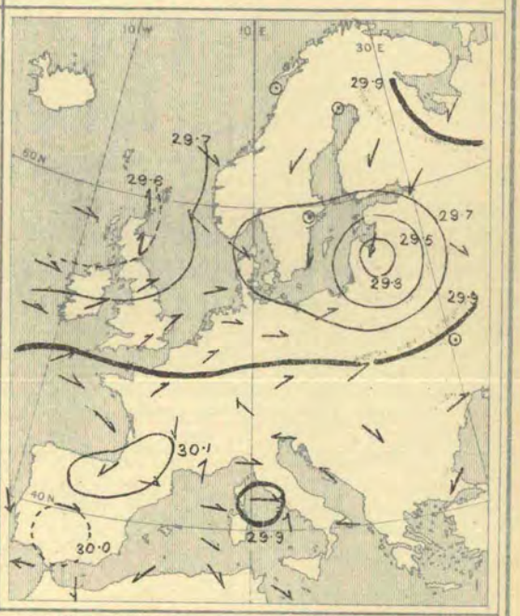


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine in the north and east of our Islands, as well as over Denmark and the greater part of southern Europe. Cloudy elsewhere, with showers over the southern parts of the United Kingdom, and steady rain at some of the German and Austrian stations. Showers falling during day over nearly the whole of central and north-western Europe, very heavy in places; thunderstorms, with heavy local rains, over England; heavy rains in northern Italy, and considerable falls over the southern half of Russia.

Temperature highest, 80° at Naples, Brindisi, and Constantinople, 79° at Lesina, and 78° at Odessa; above 70° in most parts of southern and eastern Europe. Lowest, 46° at Archangel, 54° at Sumburgh Head and Münster, and 55° at Bodö, Malin Head, and Mullaghmore; below 60° in nearly all parts of the United Kingdom, as well as over Germany, Austria, and central France. Daily maxima below 70° in most parts of our Islands, but thermometer exceeding that point over France, and reaching 86° at Lisbon and over the southern parts of Italy, as well as on the Algerian coast; 106° at Biskra.

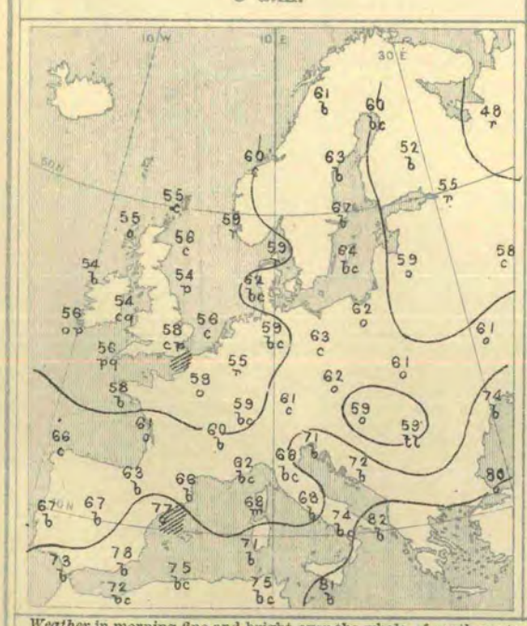
Wind light or moderate from the South-Westward or Westward over our Islands, the Netherlands, Germany, Austria, and the north of France; light from the Eastward or North-Eastward over Sweden and northern Russia, as well as over the Spanish Peninsula. Light from the Northward in Italy; variable in Algeria. Very little change occurring over western Europe during day, but beginning to blow hard from between North and North-West over the Baltic Provinces, and from North-East in the north of Italy.

Barometer highest, 30·1 ins. and upwards in an anticyclone lying over the Bay of Biscay, France, south Germany, and the greater part of Spain, as well as in a smaller system lying over the south of Russia. Lowest, 29·5 ins. and less in a depression lying off the north-west of Scotland; 29·6 ins. and less in another disturbance lying over the Baltic. Both depressions spreading eastwards later, shallow secondary systems passing across Ireland and England, Baltic disturbance becoming much deeper near Riga, and new depression forming over Italy.

Monday, 3rd August.

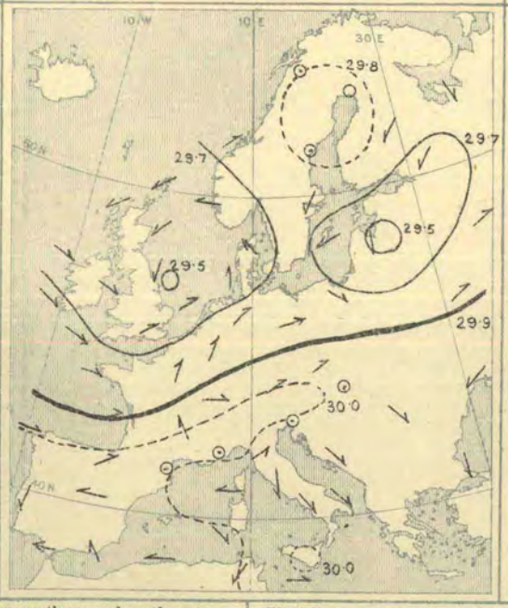
Temperature and Weather.

8 a.m.

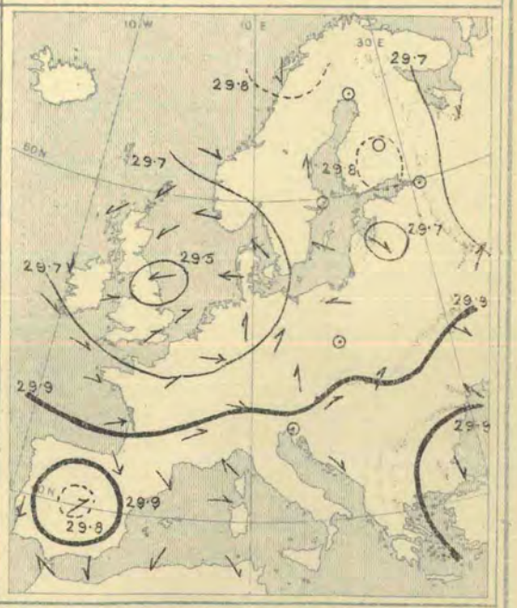


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over the whole of south-western, southern, and south-eastern Europe; changeable and very unsettled elsewhere, with showers in many places, especially over the British Islands. Thunderstorms, varying in severity, experienced in all parts of Great Britain and France later; rain in considerable quantities over Ireland, Germany, and the eastern shores of the North Sea, as well as in many parts of Russia. [Italian reports not received.] Night fine over England, but much lightning seen in places.

Temperature fallen in our Islands, and low for time of year, except over Sweden and the Baltic. Morning readings exceeding 70° in the extreme south and south-east only (80° at Constantinople, 82° at Brindisi), and exceeding 60° in many parts of Germany and Scandinavia, but below 60° over the greater part of France, the British Islands, and all the northern half of Russia, and as low as 48° at Archangel, and 52° to 55° over many parts of Great Britain. Rising unsteadily later to between 58° and 67° over Great Britain, and to between 55° and 62° over Ireland. Maxima of 70° to 79° recorded over the south of France, 80° to 90° over Spanish Peninsula, and 100° and more over central Algeria.

Wind light to moderate, and variable over the southern countries, more fresh in the north-west and north, and mainly Easterly over northern Europe and Westerly to South-Westerly over Ireland, England, France, and Germany; well-marked cyclonic circulations prevailing over the British Islands, the Baltic, and western Russia; the Westerly wind fresh to strong in force over the English Channel, but the Easterly wind over Scandinavia and the north of Scotland only light to moderate in force. The circulation over western Russia breaking up later.

Barometer highest, 30·0 ins. and more to 29·9 ins. over all the south-western, southern, and south-eastern countries, and exceeding 29·8 ins. over Finland, the Gulf of Bothnia, and the north of Sweden. Lowest, 29·5 ins. and less in two depressions—one lying over the Baltic Provinces and the other over the British Islands and North Sea. The eastern depression dispersing later, that over the British Islands moving very slowly eastwards.

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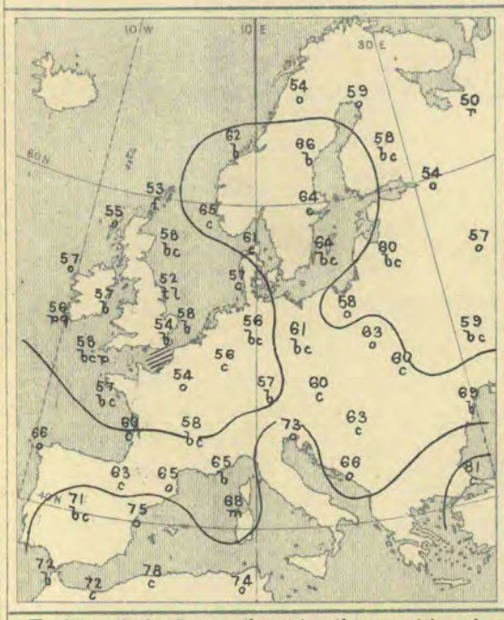
Tuesday, 4th August.

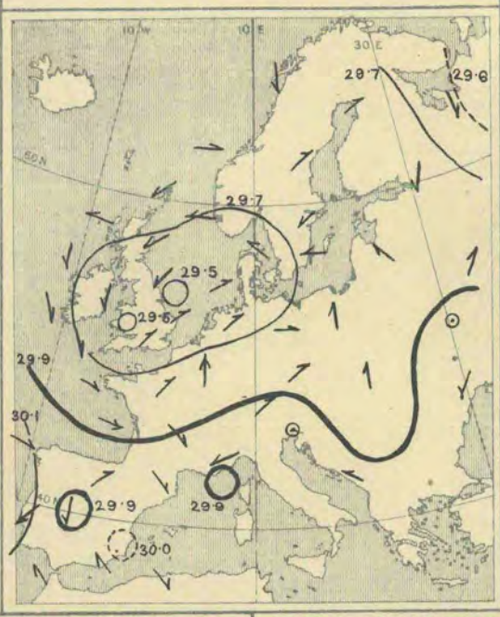
Temperature and Weather.

8 a.m.

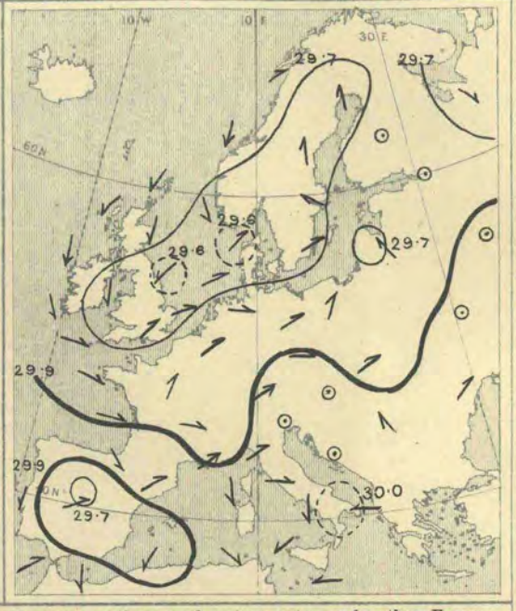


Barometer and Wind.

8 a.m.



6 p.m.



Weather continuing fine over the most southern countries only; fair over the northern parts of Scandinavia, and becoming temporarily fair in the east and south of England; dull and very unsettled elsewhere, with rain in the north and west of our Islands and in several parts of Germany, thunder in places. Rainfall during day less heavy than on Monday, but thunderstorms of considerable violence reported in the north-east, east, and south-east of England, showers over France, Germany, and the Baltic (heavy at Wisby).

Temperature still low over our Islands and France, and falling over north Germany. Morning readings exceeding 70° in extreme south-west, south, and south-east only (81° at Constantinople); exceeding 60° over the south of France, south Germany, southern and western Russia, and at most of the Danish, Swedish, and Norwegian stations. Lower over the British Isles, northern and central Russia, and as low as 50° at Archangel, 52° at Shields, and 53° at Sumburgh Head. Rising later to between 60° and 69° over our Islands, Germany, and the northern half of France, and exceeding 80° over southern Italy, 90° over Spain, and 100° over Algeria; very cold over the United Kingdom at night for time of year.

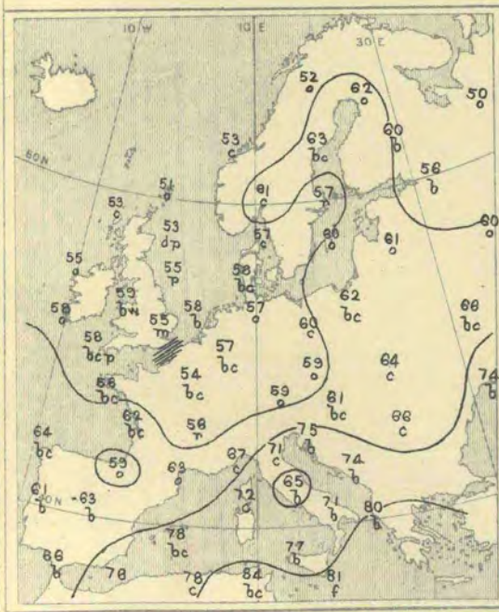
Wind light and variable over south-western, southern, south-eastern, eastern, and northern Europe; North-Easterly in Scotland, Northerly in Ireland and the Irish Channel, Westerly and South-Westerly in the English Channel and north of France, South-Westerly over the Netherlands and north Germany, Southerly to South-Easterly over the Baltic. Northerly wind increasing in force at the Irish stations later, the North-Easterly wind becoming more Northerly in Scotland, and a strong breeze from the Northward setting in along the Norwegian coast.

Barometer highest, 30·0 ins. and more over the Spanish Peninsula, southern Europe, and the Mediterranean; (2) over southern Russia and the Black Sea, exceeding 29·8 ins. over Finland, and exceeding 29·7 ins. at our most northern stations and over Scandinavia. Lowest, 29·6 ins. to 29·5 ins. in a complex depression over the North Sea and northern parts of England. Rising throughout our Islands later—most in the west and north, but depression over North Sea extending eastwards and north-eastwards over the whole of Denmark and Sweden, and a secondary appearing over the Baltic Provinces.

Wednesday, 5th August.

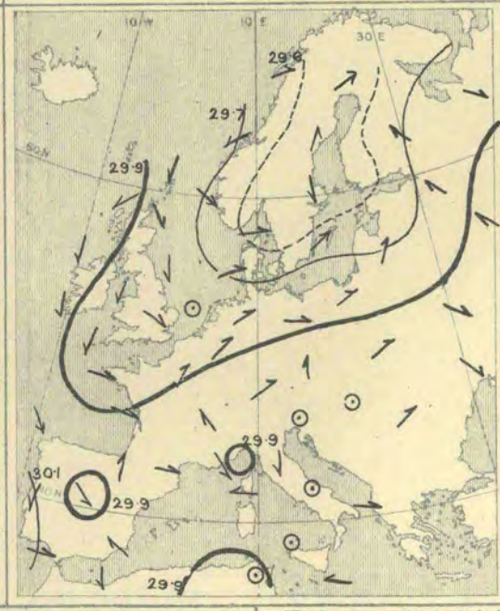
Temperature and Weather.

8 a.m.

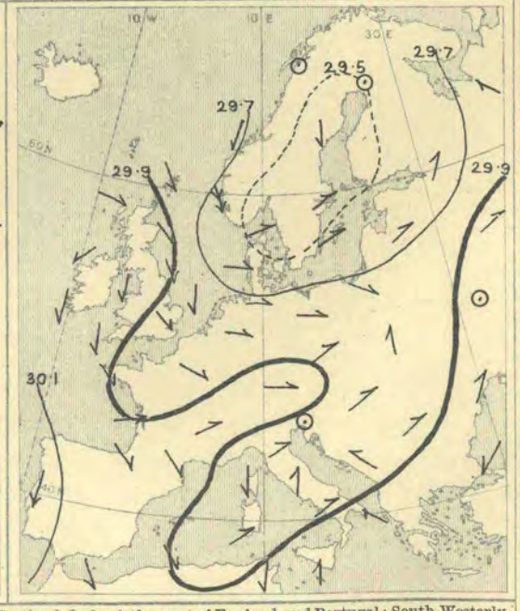


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning still cloudy and unsettled over northern and north-western Europe, with rain in several places, but improving, as a whole, over the British Islands, especially in the west; fine and bright over south-western, southern, and south-eastern Europe. A good deal of rain over Denmark and central Europe later, but little or none at the Norwegian, Irish, and most of the French stations, excepting those in the extreme south-west of France; thunderstorms at Fanö, Prawle Point, and Biarritz.

Temperature fallen a little over central Europe, and remaining low in the south-west. Morning readings exceeding 70° at nearly all the Mediterranean stations (80° at Brindisi, 81° at Malta, and 84° at La Calle), and exceeding 60° over Spain, Austria, Germany, and Sweden; lower elsewhere. Lowest, 50° at Archangel, 51° at Sumburgh Head, 52° at Bodo, Loughborough, and Oxford, 53° at Stornoway and Aberdeen, 54° at Paris, and 55° in London. Rising to between 65° and 70° over the southern and midland parts of our Islands later, as well as over Germany and the north of France, to nearly 80° in the south of France, and to still higher values over Algeria and the south of Italy. Succeeding night less cold than of late.

Wind moderate Northerly in Scotland, Ireland, the west of England, and Portugal; South-Westerly over the northern parts of France, the Netherlands, and the Baltic; nearly Southerly over the Gulf of Bothnia; light and very variable over the east and south of England, and over southern and south-eastern Europe. Little change later beyond an increase of North-Westerly wind to a gale at Skudesnaes again, and the spreading of the Northerly wind to our own south-eastern counties.

Barometer highest, 30·1 ins. and more to 30·0 ins. over Portugal and the south-west of Spain, and 30·0 ins. and more over the south-east of Russia; exceeding 29·9 ins. over nearly the whole of southern, south-eastern, and central Europe, as well as in the western parts of Ireland and Scotland. Lowest, 29·6 ins. and less in a depression over Sweden, and 29·6 ins. to 29·8 ins. in a "V"-shaped secondary extending thence in a south-westerly direction across the North Sea to England and the Channel, and below 29·9 ins. over central Spain. Rising throughout our Islands during day, but falling in Norway and Sweden, as the depression there grew deeper.

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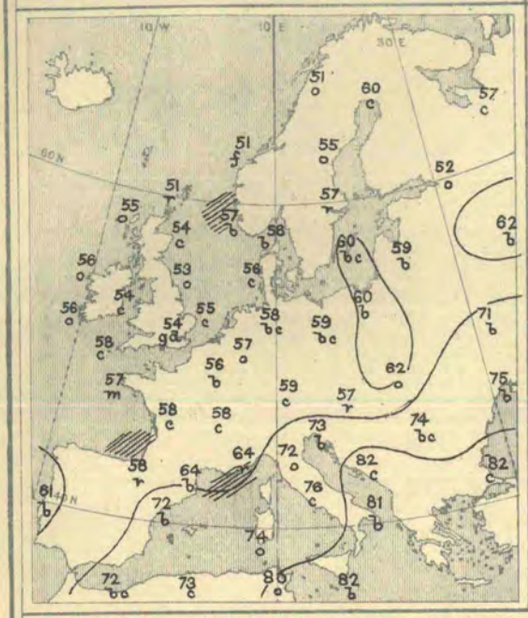
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 6th August.

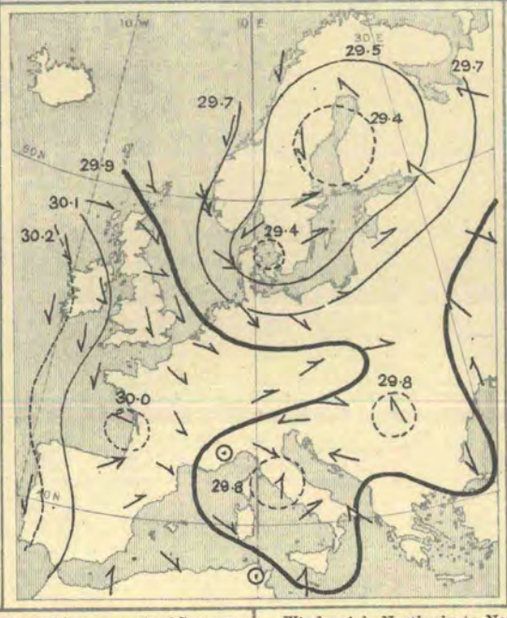
Temperature and Weather.

8 a.m.

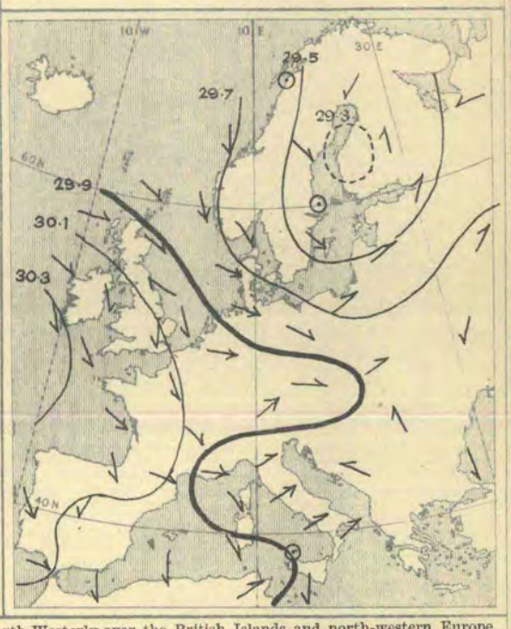


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over central and southern Russia, and in some parts of Germany and France; cloudy and unsettled everywhere else, with rain in several localities, but less disturbed over the British Isles than of late. Rain recommencing in Scotland later, and further falls of rain over northern and central Europe. Thunder and lightning occurring at some of the French stations. The newspapers report heavy rain storms in Austria.

Temperature falling over Sweden, northern and central Europe, and low generally for time of year, except in the extreme south and south-east. Morning readings, 70° and more at most Mediterranean stations and over Hungary and southern Russia (80° and more at La Calle, Lésina, Brindisi, and Constantinople); below 60° over all the central and northern countries, and as low as 51° in the Shetlands and north-west of Norway, and also at Loughborough, 52° at St. Petersburg and Cambridge, 53° at Nairn, 54° at Malin Head, Holyhead, and in London, 55° at Munich, 56° at Paris. Not touching 70° in our Islands later (except at Leith) or in Germany, and barely exceeding that value even in the south of France and at Lisbon. Rising above 90° in many parts of Italy and Algeria.

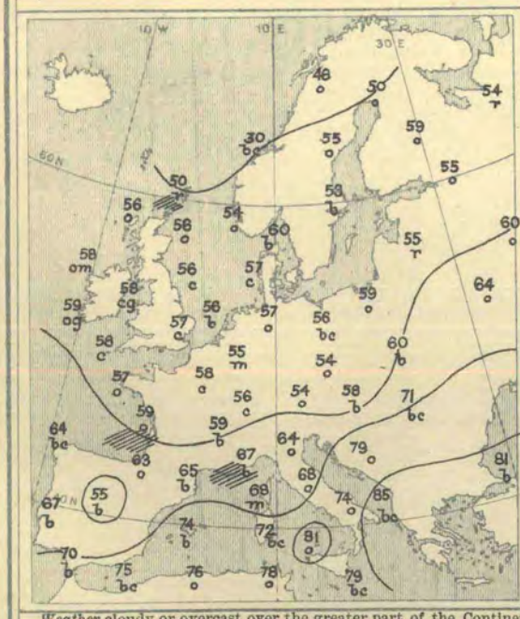
Wind mainly Northerly to North-Westerly over the British Islands and north-western Europe, and blowing strongly on the eastern side of the North Sea; Westerly to South-Westerly over Germany and Austria, South-Westerly over the Baltic, South-Easterly over northern Russia. Very variable elsewhere, and generally light in force. Increasing to a gale from North-North-West at Skudesnaes during day and becoming variable over the north-east of England; no important change elsewhere.

Barometer highest, (1) 30·2 ins. and more to 30·6 ins. over the western parts of the British Islands, the Bay of Biscay, Portugal, and Spain, with neighbouring parts of the Atlantic; (2) 30·6 ins. and more over the southern half of Russia and in Algeria. Lowest, 29·5 ins. and less in a large complex depression over Sweden, Finland, and the Baltic; 29·8 ins. and less in another (shallow one) over Italy and in a third (very shallow) one over Austria-Hungary. Rising throughout our Islands during day—but rise ceasing in north towards night. D ession over northern Europe becoming less complex.

Friday, 7th August.

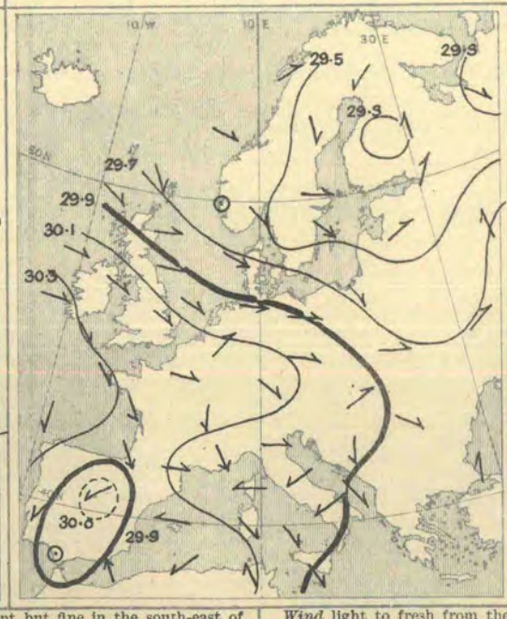
Temperature and Weather.

8 a.m.

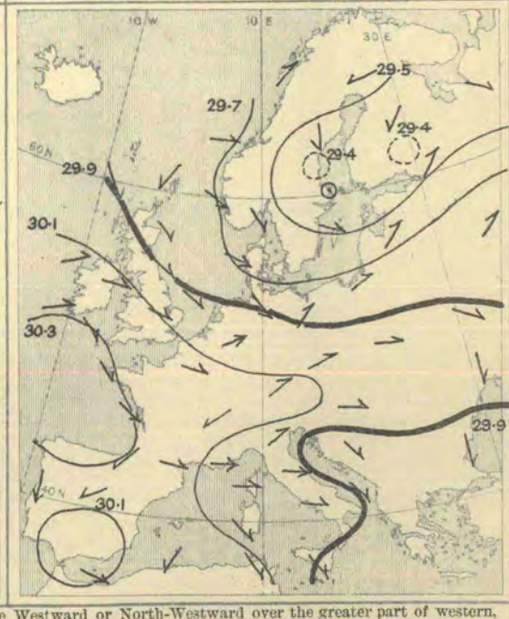


Barometer and Wind.

8 a.m.



6 p.m.



Weather cloudy or overcast over the greater part of the Continent, but fine in the south-east of England, as well as in Austria, Spain, and the southern parts of Sweden and France. Showers falling over the northern parts of the United Kingdom. Sky clearing later in many parts of our Islands and France, but rain setting in at night over all our more western and northern districts. Rain also falling in some parts of northern Italy.

Temperature highest, 85° at Brindisi, 81° at Palermo, Constantinople, and Aumale, and 79° at Lesina and Malta; above 70° at most of the Adriatic and Mediterranean stations. Lowest, 48° at Bodö, 50° at Haparanda, Christiansund, and Sumburgh Head, and 54° at Archangel, Skudesnaes, Faerder, Loughborough, Warsaw, Prague, and Munich; below 60° in nearly all parts of north-western, northern, and central Europe. Daily maxima over our Islands rather higher than of late, but thermometer remaining below 70° generally. Exceeding 70° in the south of France, and exceeding 80° in several parts of Spain, Italy, and Algeria, the highest European maximum being 97° at Brindisi.

Wind light to fresh from the Westward or North-Westward over the greater part of western, northern, and central Europe, but South-Westerly over northern Russia and North-Easterly in the north of Sweden. Light or moderate from the North-Eastward in Spain, and from the Northward (North-East to North-West) in Italy. Chiefly South-Easterly in Algeria. Subsequently backing to the Southward of West on the extreme west coasts of our Islands; shifting to the Westward at most of the Italian stations.

Barometer highest, 30·3 ins. and upwards in an anticyclone, the central portion of which lay over the Bay of Biscay and the extreme south of Ireland. Lowest, 29·3 ins. and less in two depressions lying respectively over Finland and over the extreme north of Russia—to the eastward of the White Sea; 29·6 ins. and less in another disturbance lying near the Shetlands; 30·0 ins. and less in a well-marked system lying over central Spain. Depression near Shetlands subsequently moving east-south-eastwards and dispersing, but new disturbances beginning to approach the Irish and Scotch coasts from the westward.

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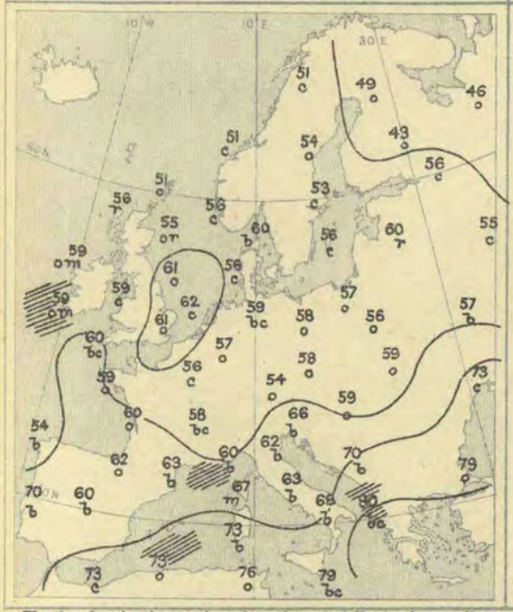
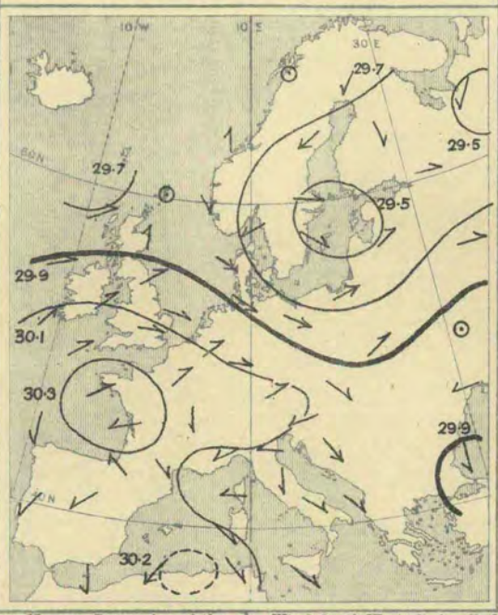
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 8th August.

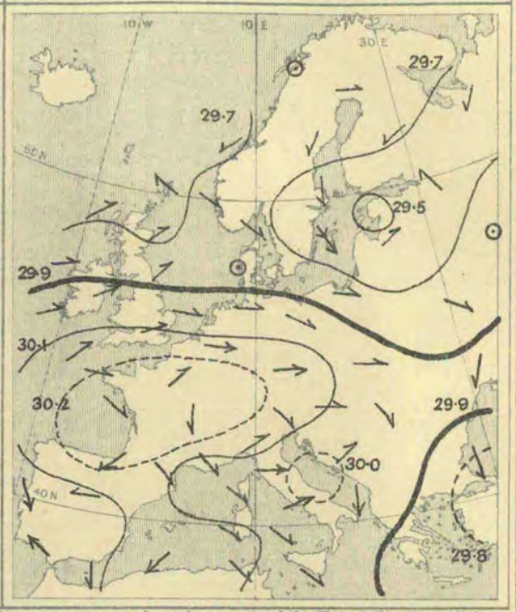
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine in the south and south-east of England, as well as over Norway, Denmark, and the greater part of southern and eastern Europe. Dull elsewhere, with rain in Scotland and the extreme north of Ireland. Unsettled rainy weather spreading later to all parts of the United Kingdom, as well as to the Netherlands; rain also falling over Finland and the Baltic Provinces—heavily (1·97 ins.) at Hangö.

Temperature highest, 80° at Brindisi, 79° at Constantinople and Malta, and 76° at La Calle; above 70° at several of the Mediterranean stations, but below 65° in the Riviera. Lowest, 45° at Haparanda, 46° at Archangel, 48° at Kuopio, and 49° at Uleaborg; below 55° in most parts of Scandinavia and northern Russia, as well as in the extreme north of Scotland; below 60° over the whole of central Europe. Daily maxima below 70° in most parts of the United Kingdom, but thermometer exceeding that point in France, and exceeding 80° over the greater part of southern Europe, the highest reading of all being 93° at Brindisi.

Wind South-Westerly in all the more western and northern parts of the United Kingdom; light or moderate in force generally, but strong at Valencia Island. Moderate from the Westward over the eastern, central, and southern parts of England, as well as over Germany and the Netherlands; strong from the North-Westward on the eastern shores of the North Sea; North-Easterly over the northern parts of Finland and Sweden. Light from East in the west of France, from North-East in Spain and Algeria, and from North or North-West in Italy. Wind subsequently increasing to a strong breeze from between North and West in Italy; no important change occurring elsewhere.

Barometer highest, 30·3 ins. and upwards in an anticyclone lying over the Bay of Biscay and the west of France. Lowest, 29·5 ins. and less in two depressions—one lying over northern Russia, near Archangel, the other over the northern parts of the Baltic; 29·7 ins. and less in a third system lying off the north-west of Scotland. Two first-named depressions subsequently filling up; disturbance off our own north-west coasts spreading eastwards and south-eastwards over all the more northern parts of the Kingdom.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During the early part of the week barometrical pressure was highest over the southern and eastern countries, while a series of depressions travelled in an east-south-easterly direction over various parts of northern and north-western Europe. In the extreme northern and southern localities the wind was rather variable, but elsewhere it was mainly Westerly or South-Westerly. The weather was very unsettled over our Islands, France, Germany, and Switzerland, with thunderstorms in many places, and with heavy local falls of rain.

On the 5th the barometer rose steadily in the western countries, and during the remainder of the week an anticyclone moved gradually in a south-easterly direction from the Atlantic past our own south-west coasts to the Bay of Biscay and France. Over northern Europe the weather remained under the influence of a complex low-pressure system, which moved in an irregular manner over Scandinavia and northern Russia; but in our own Islands the conditions underwent a gradual improvement, the wind being mainly North-Westerly to Westerly. At the end of the week, however, some fresh disturbances began to approach our northern coasts from the Atlantic, the wind again backed to the South-Westward, and unsettled weather set in over all our western and northern districts.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 182.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	22·3	?	20	?	EASTBOURNE	42·8	?	41	?
OSWALDKIRK (Yorkshire)	21·9	?	20	?	TORQUAY	39·4*	?	38*	?
WORKSOP	13·3	−21·7	13	−20	ARLEY COTTAGE (County Cavan)	23·8	?	22	?
THURCASTON (Leicestershire)	26·5	− 9·9	25	−10	GUERNSEY	64·3*	?	62*	?

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 32.] *Third Series.* WEEK ENDING SATURDAY, 15TH AUGUST, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 188.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	64	42	59·6	49·1	54·0	1 below.	84	+ 2	0	0	1289	+153	621	+ 79
1. SCOTLAND, EAST	70	42	63·5	49·5	56·1	0 (average)	99	− 5	0	0	1456	− 39	670	+101
2. ENGLAND, N.E.	73	45	64·8	52·6	58·3	1 below.	114	+ 3	0	0	1465	−104	593	+ 95
3. ENGLAND, EAST	76	46	67·7	54·1	60·5	0 (average)	130	+ 7	0	0	1718	−123	689	+128
4. MIDLAND COUNTIES	75	46	66·6	54·1	60·0	1 above.	126	+ 8	0	0	1735	−102	668	+116
5. ENGLAND, SOUTH	77	49	68·0	55·8	61·5	0 (average)	137	+ 6	0	0	1864	−121	565	+149
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	68	50	62·1	52·5	57·0	0 (average)	105	+ 4	0	0	1614*	+ 83	463	+ 46
7. ENGLAND, N.W.	67	46	63·2	54·2	58·4	0 (average)	115	+ 3	0	0	1644	− 3	449	+ 35
8. ENGLAND, S.W.	71	49	63·9	54·8	59·1	0 (average)	120	+ 1	0	0	1757	− 82	434	+118
9. IRELAND, NORTH	69	50	63·2	54·0	58·3	1 above.	114	+ 9	0	0	1690	+ 41	391	+ 29
10. IRELAND, SOUTH	72	43	65·5	54·9	55·9	1 above.	125	+12	0	0	1895	+ 21	309	+ 31
— CHANNEL ISLANDS	70	56	65·2	57·7	61·3	1 below.	135	+ 3	0	0	1993	− 28	162	+ 40

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 188.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	6	12	4 more.	142	− 4	27·9	+ 1·1	15	−12	14	−11	868	+ 33	28	0
1. SCOTLAND, EAST	5	7	0 (average)	101	−17	13·7	− 4·5	29	−14	28	−15	945	− 27	31	− 1
2. ENGLAND, N.E.	5	6	0 (average)	100	− 9	12·2	− 2·7	33	+ 3	31	+ 1	894	+ 5	30	0
3. ENGLAND, EAST	4	4	1 less.	110	+ 4	13·6	− 1·2	33	− 8	32	−11	965	−101	32	− 4
4. MIDLAND COUNTIES	4	5	1 less.	104	− 2	14·3	− 2·3	28	−10	27	−10	935	− 12	31	− 1
5. ENGLAND, SOUTH	4	4	1 less.	97	− 5	14·1	− 1·5	33	−10	33	−11	1085	+ 62	36	+ 1
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	6	12	2 more.	107	−19	17·9	− 9·9	24	−11	23	−10	1008	+ 46	34	+ 2
7. ENGLAND, N.W.	5	13	6 more.	98	−16	15·9	− 3·1	26	−10	25	− 9	919	− 32	31	− 1
8. ENGLAND, S.W.	6	8	0 (average)	104	−13	18·3	− 3·9	36	− 9	35	− 7	1149	+ 33	39	+ 1
9. IRELAND, NORTH	6	12	4 more.	122	−13	15·3	− 5·4	22	− 7	21	− 6	938	+ 55	31	+ 1
10. IRELAND, SOUTH	5	7	1 less.	110	−14	17·6	− 4·9	26	−10	26	− 9	1016	+ 2	34	0
— CHANNEL ISLANDS	4	7	2 more.	104	−20	14·8	− 2·9	31	−24	31	−24	1393*	+ 86	47	+ 2

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has continued in an unsettled condition very generally. Heavy rain has fallen in the more north-western and northern parts of the Kingdom, but in the south and east of England the rain has been comparatively slight, and several fair intervals have been experienced. Thunderstorms occurred in many parts of the Kingdom on the 10th.

Temperature has not differed materially from the mean. The highest of the maxima, which were recorded on irregular dates in Ireland and Scotland and on the 14th over England, varied from 77° in "England S." and 76° in "England E." to 67° in "England N.W." and 64° in "Scotland N." The lowest of the minima were registered in most places on the 11th, and ranged from 42° in the north and east of Scotland to 50° in "Scotland W." and "Ireland N." and to 56° in the "Channel Islands."

Rainfall has been less than the mean in "England E.," the "Midland Counties," "England S.," and also in "Ireland S.," and equal to it in "Scotland E.," "England N.E.," and "England S.W."; in the other districts a somewhat decided excess is shown. A very heavy fall is reported to have occurred in some parts of Lancashire between the 13th and 14th.

Bright Sunshine has been less than the mean in all districts except "England N.E." The percentage of the possible amount of duration ranged from 35 in "England S.W.," and 33 in "England S.," to 21 in "Ireland N." and 14 in "Scotland N."

Barometer and Wind.—During the whole of this period the barometer has been highest to the southward or south-westward of our Islands, while depressions have passed eastwards or north-eastwards over the more northern parts of the Kingdom, and secondary disturbances have at times travelled in similar directions over our southern districts. Westerly breezes were general over England and Ireland, but in Scotland the wind was more variable and occasionally blew from the Eastward.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 187 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ℌ	58	44	56·1	47·3	51·4	− 1·5	66	0	5	0·84	+0·15	*	*	*	*
	Stornoway	60	45	58·3	50·0	53·9	− 0·1	83	0	6	1·19	+0·39	16·2	−11·4	15	−11
	Wick	64	42	60·6	47·4	53·6	− 1·1	81	0	7	0·98	+0·39	*	*	*	*
	Lairg ℌ	63	45	60·9	48·5	54·3	− 0·5	86	0	6	0·79	+0·15	*	*	*	*
	Glencarron ℌ	63	45	59·1	48·3	53·3	− 1·1	79	0	7	1·87	+0·37	*	*	*	*
	Fort Augustus ℌ	63	48	61·2	50·4	55·4	− 0·8	94	0	6	1·42	+0·73	16·9	?	12	?
	Fort William ℌ	64	50	60·8	51·9	56·1	− 0·3	99	0	6	1·61	+0·33	13·2	?	12	?
1. SCOTLAND, E.	Nairn	66	45	64·6	49·7	56·7	0·0	103	0	7	0·14	−0·48	*	*	*	*
	Aberdeen	66	46	62·3	49·7	55·6	− 1·0	95	0	5	0·63	−0·06	19·8	−15·7	19	−15
	Braemar ℌ	62	42	60·5	47·0	53·4	− 0·2	80	0	5	0·92	+0 09	22·7†	? †	21†	?†
	Ochtertyre ℌ	70	48	65·4	50·1	57·3	+ 0·6	107	0	5	0·38	+0·08	*	*	*	*
	Leith	68	50	64·6	52·1	58·0	− 0·5	112	0	5	0·88	+0·30	*	*	*	*
	Marchmont ℌ	68	45	63·4	48·3	55·4	− 0·9	94	0	5	0·82	+0·02	37·0	?	35	?
2. ENGLAND, N.E.	Alnwick Castle	68	45	64·4	51·7	57·7	+ 0·8	110	0	3	0·29	−0·41	*	*	*	*
	Durham	73	46	66·3	51·6	58·5	+ 0·1	116	0	5	0 73	+0·11	35·7	+ 0·6	34	+ 1
	Shields	72	46	65·0	51·6	57·9	+ 0·2	111	0	4	0·52	−0·14	*	*	*	*
	Scarborough ℳ	70	50	64·1	53·7	58·6	+ 0·1	116	0	6	0·73	+0·10	*	*	*	*
	York	69	47	65·1	51·9	58·1	− 1·1	113	0	5	1·05	+0·47	36·1	+ 2·2	34	+ 2
	Spurn Head	66	52	63·6	55·1	59·1	− 0·4	120	0	4	0·41	−0·01	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	76	47	67·1	53·3	59·8	− 0·3	125	0	5	0·52	−0·10	27·8	−12·8	27	−15
	Yarmouth	74	49	66·4	54·9	60·3	− 0·2	128	0	5	0·38	−0·14	*	*	*	*
	Geldeston	76	46	68·4	53·1	60·3	0·0	128	0	5	0·39	−0·03	31·6	−12·4	31	−12
	Cambridge	76	48	69·0	54·6	61·4	+ 0·3	136	0	4	0·48	−0·02	35·9	− 4·7	35	− 5
	Rothamsted	73	49	67·5	54·8	60·8	+ 1·0	132	0	3	0·20	−0·35	36·7	?	36	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	70	48	65·9	53·0	59·1	− 0·3	120	0	3	1·05	+0·49	*	*	*	*
	Loughborough	74	52	68·4	55·9	61·8	+ 1·1	139	0	4	0·48	−0·08	*	*	*	*
	Stamford (Ketton Hall)	75	46	68·6	54·3	61·0	+ 0·3	133	0	4	0·44	?	*	*	*	*
	Cheadle ℳ	69	50	63·5	53·5	58·2	+ 0·7	113	0	5	0·68	−0·10	*	*	*	*
	Churchstoke ℳ	67	49	64·8	54·0	59·1	+ 1·2	120	0	6	0·45	−0·17	27·1	−11·1	26	−11
	Hereford ℳ	72	52	67·9	55·1	61·1	+ 0·9	134	0	3	0·25	−0·30	*	*	*	*
	Cirencester	71	46	66·7	52·0	58·9	+ 0·1	118	0	4	0·39	−0·30	30·9	− 9·9	30	−10
	Oxford	73	51	66·7	55·3	60·7	− 0·1	131	0	4	0·24	−0·28	32·5	− 9·2	32	− 9
5. ENGLAND, S.	London	76	49	69·7	55·7	62·3	+ 0·1	142	0	4	0·24	−0·27	32·7 †	− 5·3†	32†	− 5†
	Strathfield Turgiss ℳ	77	50	70·1	54·8	62·0	+ 0·9	140	0	5	0·26	−0·24	*	*	*	*
	Dungeness	70	51	66·4	56·4	61·1	− 0·6	134	0	3	0·46	+0·01	*	*	*	*
	Hastings (St. Leonards)	68	52	66·1	55·9	60·6	− 1·5	130	0	3	0·62	+0·08	30·6	−16·1	30	−16
	Southampton	74	50	70·7	55·3	62·8	+ 0·8	146	0	4	0·33	−0·27	35·0	−11·0	34	−12
	Hurst Castle	69	53	66·1	57·4	61·5	− 0·4	137	0	3	0·43	−0·08	*	*	*	*
	Stowell ℳ	71	50	66·7	54·8	60·4	+ 0·9	129	0	4	0·35	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	63	50	60·1	51·2	55·4	− 1·4	94	0	7	1·86	+0·67	*	*	*	*
	Glasgow	66	52	61·8	53·2	57·2	+ 0·5	106	0	7	0·87	+0·01	20·9	− 8·3	20	− 8
	Ardrossan	65	53	62·0	53·9	57·7	− 0·2	110	0	5	1·01	+0·17	*	*	*	*
	Glenlee ℌ	68	50	63·5	52·1	57·6	+ 1·4	109	0	5	1·21	+0·21	*	*	*	*
	Douglas (Isle of Man)	65	50	62·9	52·3	57·3	+ 0·4	107	0	5	0·90	+0·09	26·0	−13·0	25	−13
7. ENGLAND, N.W.	Newton Reigny	67	46	63·2	51·2	56·8	+ 0·9	104	0	5	1·09	+0·36	29·3	− 2·9	28	− 3
	Stonyhurst	64	50	61·8	53·4	57·4	− 0·8	108	0	7	2·48	+1·47	20·8	−14·0	20	−13
	Blackpool ℳ								0							
	Manchester	65	50	63·3	53·6	58·2	− 0·3	113	0	6	1·80	+0·96	*	*	*	*
	Liverpool Obsy. (Bidston)	65	55	63·3	56·0	59·4	− 0·3	122	0	4	1·00	+0·33	*	*	*	*
	Llandudno ℳ	65	55	63·9	56·0	59·7	− 0·3	124	0	2	0·76	+0·16	26·8	− 8·6	26	− 9
	Holyhead	66	53	63·9	54·7	59·0	− 0·1	119	0	4	0·73	+0·09	*	*	*	*
8. ENGLAND, S.W.	Llandovery	68	49	65·7	53·6	59·3	0·0	121	0	7	1·03	0·00	*	*	*	*
	Pembroke	62	55	60·4	55·7	57·9	− 1·2	111	0	5	0·57	−0·06	34·0	−11·6	33	−12
	Arlington (N. Devon)	66	49	62·6	53·4	57·7	− 0·8	110	0	5	1·35	+0·23	*	*	*	*
	Cullompton ℳ	71	49	67·4	54·7	60·7	+ 1·2	130	0	5	0·49	−0·12	34·4	− 7·0	34	− 7
	Falmouth	68	53	64·9	56·3	60·3	0·0	128	0	5	0·46	−0·35	41·0	− 5·6	40	− 7
	Plymouth															
	Prawle Point	68	52	62·3	54·9	58·4	− 1·3	115	0	6	0·72	+0·22	*	*	*	*
9. IRELAND, N.	Malin Head	62	52	60·4	53·6	56·8	− 0·6	104	0	7	0·50	?	*	*	*	*
	Londonderry	64	52	62·7	53·7	57·9	0·0	111	0	7	1·45	+0·59	*	*	*	*
	Mullaghmore	63	54	62·4	55·0	58·5	+ 0·2	116	0	6	1·28	+0·44	*	*	*	*
	Belmullet	63	54	61·1	55·1	57·9	− 1·0	111	0	7	1·39	?	*	*	*	*
	Markree Castle	66	51	62·7	53·3	57·7	+ 1·0	110	0	7	1·43	+0·63	18·7	−10·3	18	−10
	Brookeborough	66	52	63·3	52·9	57·7	+ 1·0	110	0	6	1·52	+0·72	*	*	*	*
	Armagh	68	52	65·2	53·7	59·1	+ 1·6	120	0	6	1·47	+0·80	25·2	− 1·6	24	− 2
	Donaghadee	69	53	65·4	54·9	59·8	+ 2·6	125	0	7	0·76	+0·06	*	*	*	*
	Edgeworthstown	68	50	65·9	54·0	59·6	+ 2·3	123	0	4	0·98	+0·18	*	*	*	*
10. IRELAND, S.	Dublin	69	53	66·3	55·2	60·4	+ 0·9	129	0	4	1·06	+0·44	37·6	+ 1·2	37	+ 1
	Parsonstown	66	53	65·1	54·9	59·7	+ 1·2	124	0	5	0·86	+0·11	23·3	− 9·6	23	− 8
	Kilkenny	72	50	66·7	54·6	60·3	+ 1·8	128	0	6	0·58	−0·14	*	*	*	*
	Waterford	71	49	68·5	54·0	60·8	+ 1·2	132	0	3	0·44	−0·34	*	*	*	*
	Roche's Point	67	54	65·0	55·4	59·9	+ 0·2	125	0	4	0·72	−0·06	*	*	*	*
	Valencia	64	54	63·3	56·1	59·5	+ 0·6	123	0	6	0·67	−0·37	17·7	−18·5	17	−19
	Killarney	69	43	65·1	53·3	58·9	+ 0·2	118	0	6	0·60	?	*	*	*	*
	Foynes	67	53	63·7	55·9	59·6	+ 1·1	123	0	7	0·90	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	68	56	64·0	57·4	60·5	− 0·2	130	0	5	0·65	+0·11	*	*	*	*
	Jersey	70	57	66·4	58·0	62·0	− 0·8	140	0	3	0·70	+0·21	30·9	−24·1	31	−24

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

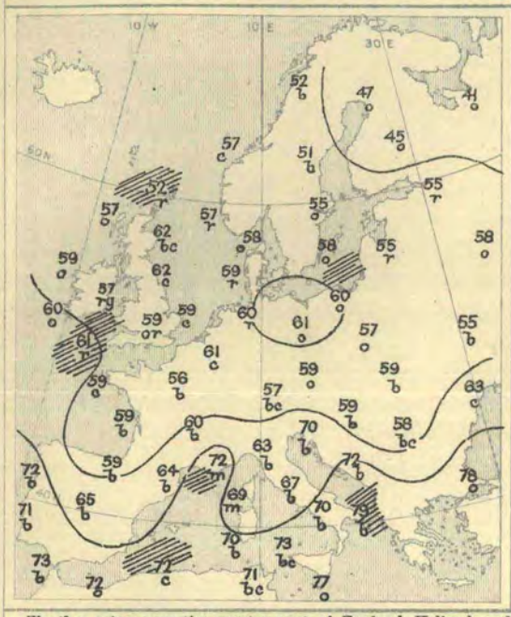
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

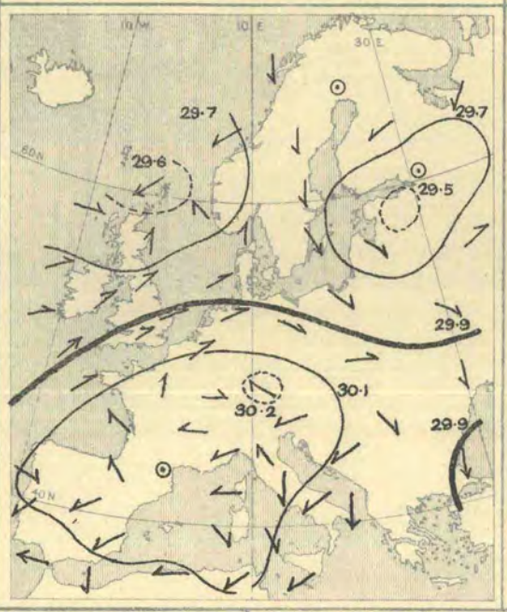
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 9th August.

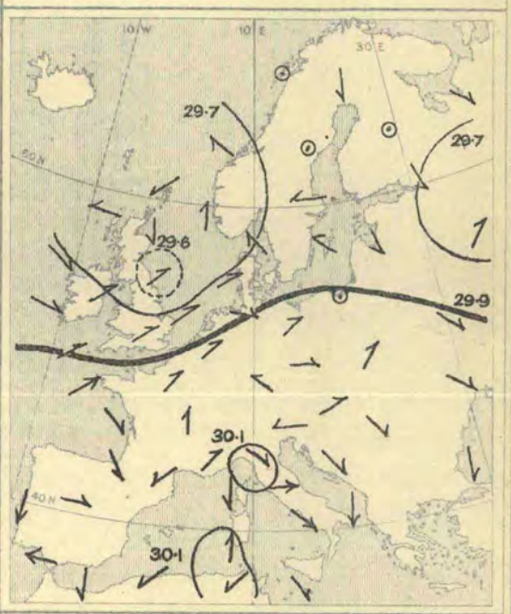
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather rainy over the greater part of England, Holland, and Germany, as well as over the Shetlands, the south of Norway, Denmark, and the Baltic Provinces; dull in Ireland and the west of Scotland, and also at most of the Russian stations. Fine and bright over France and southern and eastern Europe, as well as over the central parts of Scotland. Rain falling during day over the whole of the United Kingdom, the largest amounts being 0·6 ins. at Leith, and 0·5 at Liverpool and Roche's Point; as much as 2·7 ins. reported next morning at Faerder. Slight amounts measured at the Russian stations.

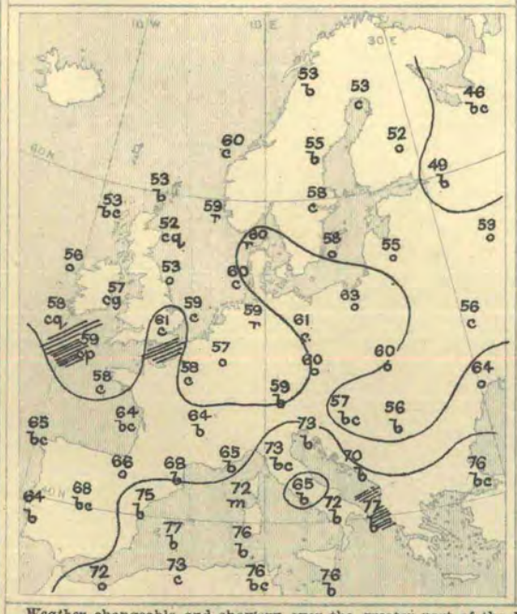
Temperature, highest, 79° at Brindisi, 78° at Constantinople, 77° at Malta, and 75° at Barcelona; above 70° at many of the Adriatic and Mediterranean stations. Lowest, 41° at Archangel, 45° at Kuopio, 47° at Uleaborg, and 50° at Haparanda; below 55° over the northern parts of Scandinavia and Russia generally, below 60° in many parts of the United Kingdom. Daily maxima below 65° at nearly all our own stations, but thermometer reaching 70° in some parts of Germany, exceeding 80° over southern Europe generally, and exceeding 90° over Algeria and central Spain.

Wind South-Westerly over the greater part of our Islands, as well as over Denmark, Germany, the Netherlands, and the north of France—fresh or strong in force on our southern coasts; South-Easterly or Easterly in Norway. North-Easterly over northern Russia, Northerly in Sweden, North-Westerly in the west and south of Russia. Light from the North in Italy and from the North-East over Spain and Algeria. Subsequently veering to the westward in Ireland and shifting to the North-Westward in the west of France; no important change occurring elsewhere.

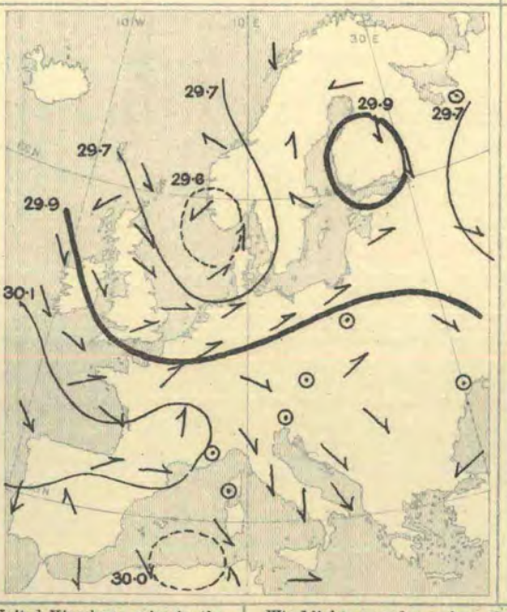
Barometer highest, 30·1 ins. to 30·2 ins. in a large anticyclone covering Spain, France, south Germany, Switzerland, Austria, northern Italy, and the western parts of the Mediterranean. Lowest, 29·5 ins. and less in a depression lying over the Baltic Provinces; 29·6 ins. and less in another disturbance lying off the north of Scotland. Depression off Scotch coasts filling up later, but new system forming over the north-east of Great Britain and barometer falling at all the English stations. Disturbance over Baltic Provinces moving eastwards and filling up.

Monday, 10th August.

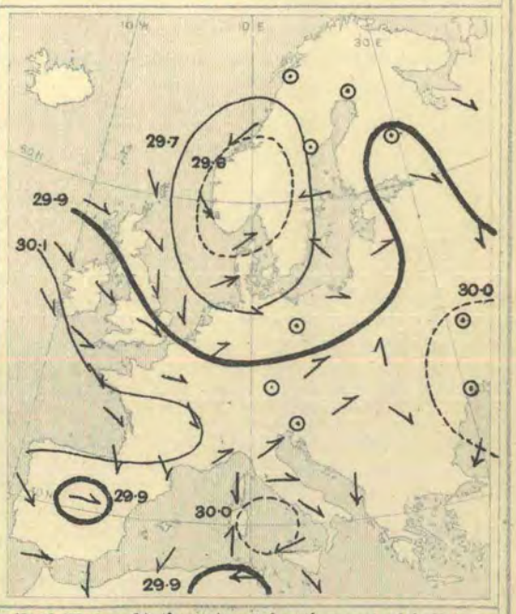
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather changeable and showery over the greater part of the United Kingdom; rainy in the Netherlands, western Germany, and the south of Norway, as well as at some of the Baltic stations. Fine in nearly all other parts of Europe. Thunderstorms and heavy showers occurring later at many of the English stations; considerable quantities of rain falling in Denmark and the southern parts of Scandinavia. Thunderstorm occurring at Algiers during the ensuing night.

Temperature highest, 81° at Aumale, 78° at Sfax, 77° at Palma and Brindisi, and 76° at Cagliari, La Calle, and Malta; above 70° at most of the Adriatic and Mediterranean stations. Lowest, 46° at Archangel, 49° at St. Petersburg, and 52° at Uleaborg, Kuopio, Wick, and Aberdeen; below 60° in nearly all parts of northern and north-western Europe. Remaining below 60° all day at some of our own northern and north-eastern stations, but rising to between 65° and 68° over the central and southern districts. Exceeding 70° over France generally, and exceeding 80° in the extreme south of that country, and also in Italy. Rising to between 90° and 100° over Algeria and central Spain.

Wind light or moderate from the North-Westward in the western and northern parts of the United Kingdom generally, but Northerly or North-Easterly in the north of Scotland. Moderate from the Westward over France and the greater part of England, from the South-Westward over Denmark, Germany, and the Netherlands, and from the South-Eastward or Eastward in Scandinavia. Light from the Northward at most of the Russian and Italian stations; variable in Austria, and also in Algeria. Subsequently backing to the Westward in the extreme north-west of our Islands; no important change occurring elsewhere.

Barometer highest, 30·1 ins. and upwards over the south-west of France, the north of Spain, and the southern parts of the Bay of Biscay; 30·0 ins. and upwards over all the more southern countries. Lowest, 29·6 ins. and less in a well-defined depression lying off the south of Norway; 29·7 ins. and less in a large shallow area lying over Russia. Former disturbance subsequently moving northwards and beginning to fill up; new depression approaching our north-west coasts from the Atlantic, and shallow system forming over central Spain.

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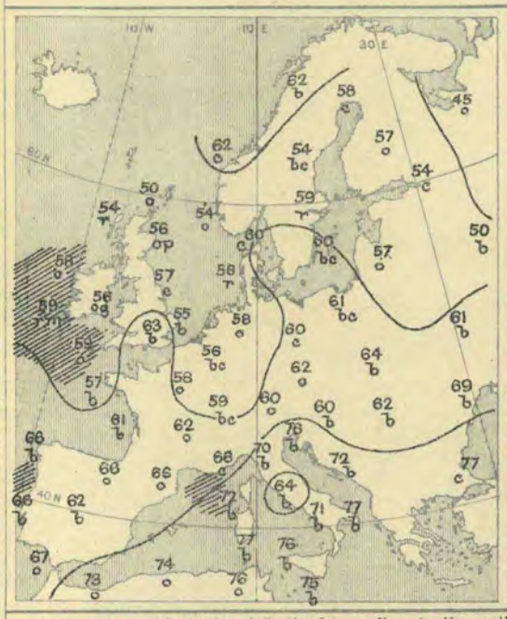
Tuesday, 11th August.

Temperature and Weather.

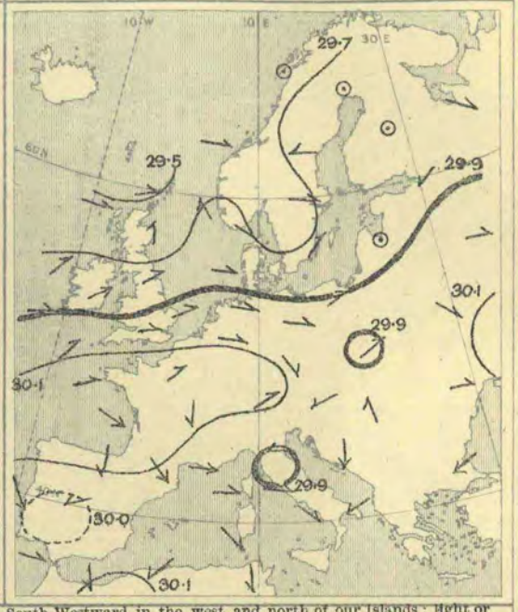
8 a.m.



Barometer and Wind.

8 a.m.

6 p.m.



Weather rainy in Ireland and Scotland, as well as in the south of Scandinavia, some parts of Denmark, and the extreme south of France; showery in the west of England; dull at many of the German stations. Fine in nearly all other parts of Europe, but dull in Algeria. Improvement taking place later over Ireland and Scotland, but showers falling in many parts of England, as well as in the north of France. Rain setting in over the Gulf of Finland in evening. Solar halos seen over our southern counties during day.

Temperature highest, 79° at Tunis, 77° at Cagliari, Brindisi, and Constantinople, and 76° at Palermo and La Calle; above 70° at most of the Adriatic and Mediterranean stations, above 60° in the west of Norway. Lowest, 45° at Archangel, 50° at Sumburgh Head and Moscow, 53° at Uleaborg and Helsingfors, and 54° at St. Petersburg, Hernösand, Skudesnaes, Stornoway, Nairn, and Leith; below 60° in all but the south-eastern parts of the United Kingdom. Rising during day to between 65° and 68° in many parts of Great Britain and exceeding 70° in France. Reaching 80° or more in many parts of southern Europe, the highest reading of all being 88° at Brindisi.

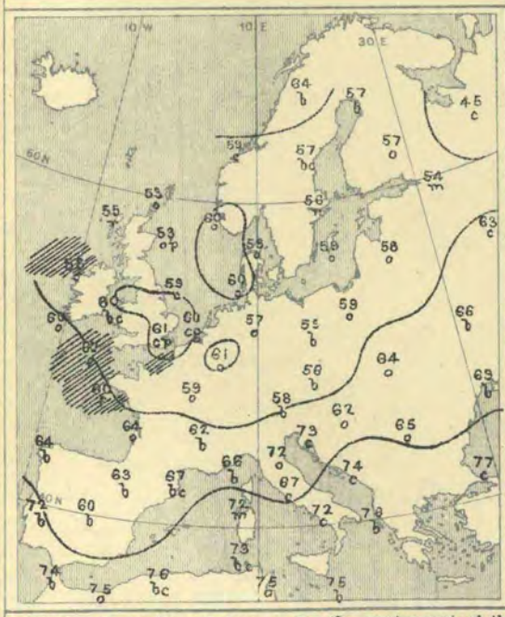
Wind light to fresh from the South-Westward in the west and north of our Islands; light or moderate from the Westward over Germany, the Netherlands, and the east and south of England. Strong from the North-Westward over the eastern shores of the North Sea, moderate from the same quarter over France; Northerly or North-Easterly in Spain and Algeria. Light from the Eastward over the Gulf of Finland and the north of Scandinavia; variable over Italy, Austria, and the south of Russia. Subsequently veering to the South-Westward in the extreme west of our Islands, but backing to the South-Westward again at night; no important change occurring at Continental stations.

Barometer highest, 30·1 ins. to 30·2 ins. in an anticyclone lying over the Bay of Biscay, France, south Germany, and the north of Spain, and also in another system lying over the south of Russia. Lowest, 29·6 ins. and less in three depressions—one lying off the north-west of Scotland, another over the west of Norway, and the third near Stockholm; 29·9 ins. and less in a shallow disturbance off the Tunisian coasts. Depression to north-west of Scotland subsequently moving north-eastwards, but further systems beginning to advance from the Atlantic.

Wednesday, 12th August.

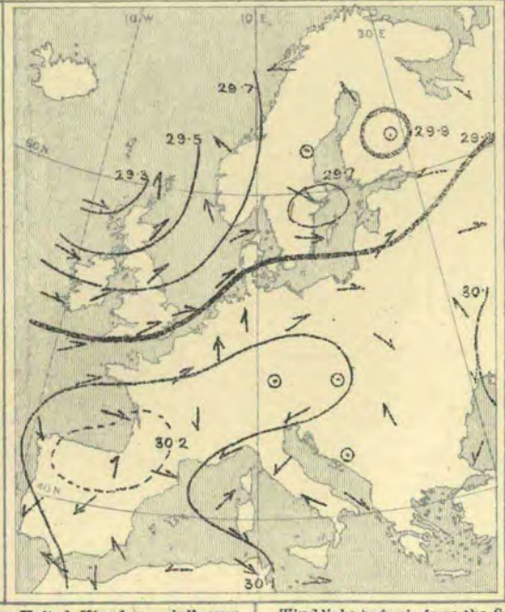
Temperature and Weather.

8 a.m.

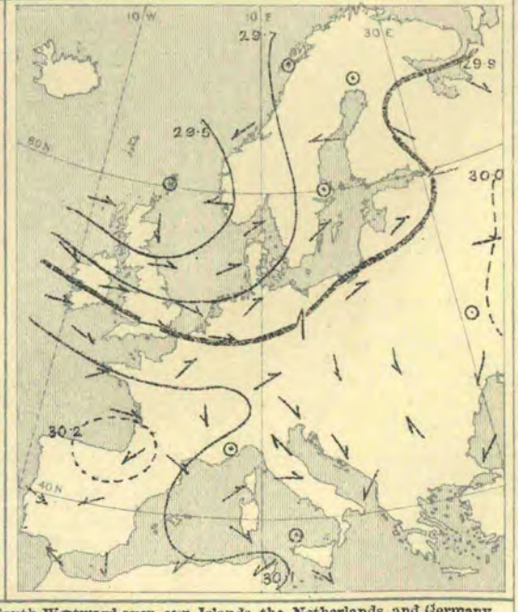


Barometer and Wind.

8 a.m.



6 p.m.



Weather changeable and showery over the greater part of the United Kingdom; dull over Denmark and the Baltic, with rain at Stockholm. Fine in nearly all other parts of Europe, but cloudy at some of the Italian stations. Improvement taking place later over England, but showers falling in Scotland, Ireland and France, and heavy rain over Denmark and north Germany.

Temperature highest, 80° at Sfax, 77° at Constantinople, 76° at Brindisi and Algiers, and 75° at Oran, Tunis, and Malta; above 70° at most of the Adriatic and Mediterranean stations. Lowest, 45° at Archangel, 53° at Sumburgh Head, Wick, and Aberdeen, 54° at St. Petersburg, and 55° at Helsingfors, Stornoway, Ardrossan, and Malin Head; below 60° over the greater part of north-western, northern, and central Europe, but above that point at some of the English stations, and also in the north of Norway. Rising during day to a little above 70° over the inland parts of England, to 80° or more over southern and eastern Europe generally, and to 90° or more at several of the Spanish and Algerian stations.

Wind light to fresh from the South-Westward over our Islands, the Netherlands, and Germany, and from the Southward on the eastern shores of the North Sea, light from the Eastward over Finland and the north of Scandinavia. Light from the Northward in the south of Russia, and from the North-Eastward in Spain and Italy; variable or Easterly at the Algerian stations. Subsequently veering to the Westward or North-Westward in all parts of the United Kingdom, and increasing to a fresh gale at Mullaghmore, no important change occurring elsewhere.

Barometer highest, 30·2 ins. and upwards in an anticyclone lying over the south-west of France and the northern parts of Spain; 30·1 ins. and upwards in another system over the south of Russia. Lowest, 29·3 ins. and less in a well-marked depression lying to the northward of the Hebrides, 29·7 ins. and less in a small shallow system lying near Stockholm. Depression off the Scotch coasts subsequently moving slowly in an east-south-easterly direction; barometer rising in most parts of the United Kingdom. Swedish disturbance filling up.

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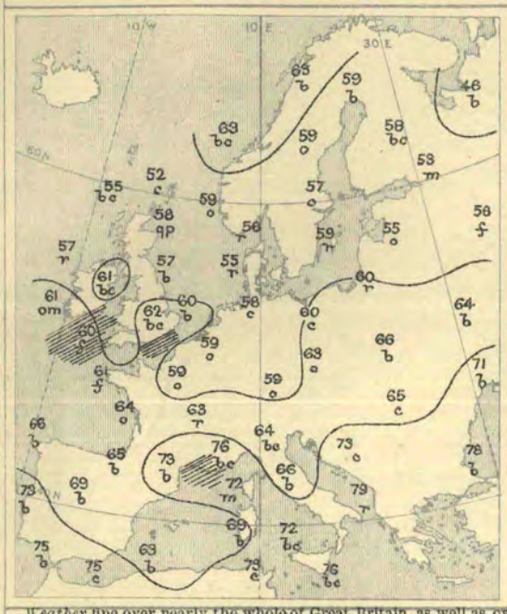
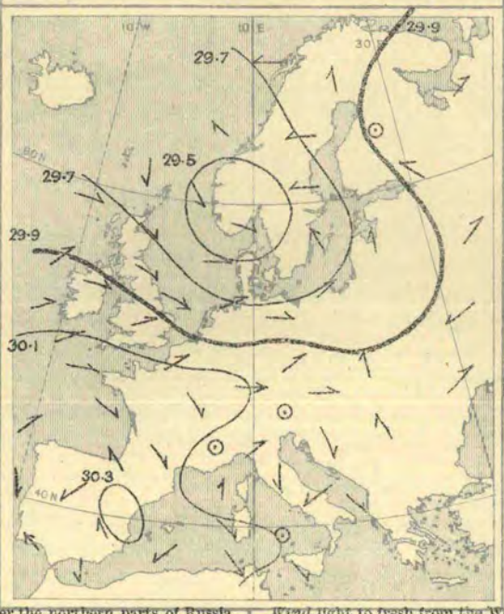
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 13th August.

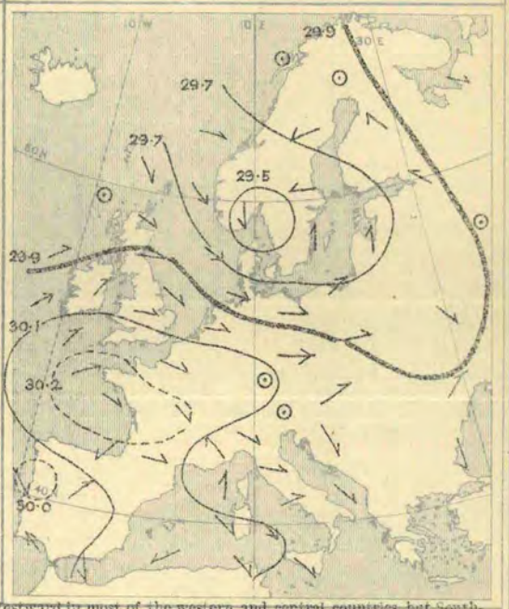
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over nearly the whole of Great Britain, as well as over the northern parts of Russia and Scandinavia, and the greater part of southern and eastern Europe. Dull elsewhere, with rain at some of the Irish stations, and also in Denmark, eastern Germany, and the south of Sweden. Dull weather spreading later from the westward to nearly all parts of Great Britain; rain falling in the west and north generally—heavily in the north of Ireland, and still more so in some parts of Lancashire.

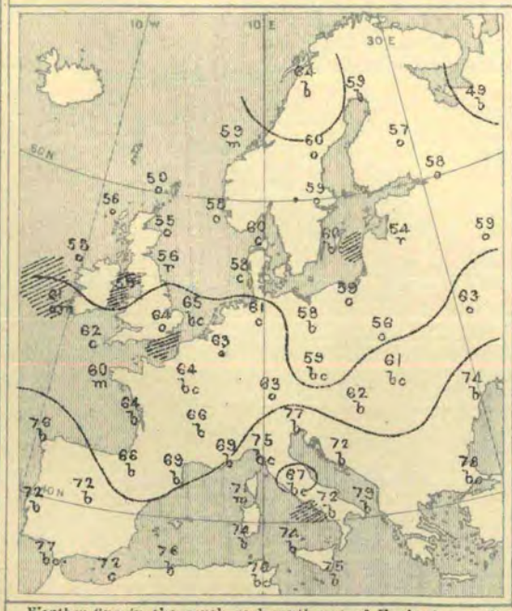
Temperature highest, 79° at Brindisi, 78° at Barcelona, Sfax, and Constantinople, and 76° at Trieste, Toulon, and Malta; above 70° at nearly all the Adriatic and Mediterranean stations, and above 60° in the west of Norway and many parts of England and Ireland. Lowest, 46° at Archangel, 52° at Sumburgh Head, 53° at St. Petersburg, 54° at Ulealborg, and 55° at Fanö, Stornoway, Wick, Nairn, and Parsonstown. Rising later to between 65° and 70° in many parts of the United Kingdom, to 80° or more over southern Europe generally, to 90° or more in some parts of the Spanish Peninsula, and to 102° at Biskra.

Wind light to fresh from the Westward in most of the western and central countries, but South-Westerly or Southerly in the west of Ireland. Light from the South-Westward over eastern Germany, from the Southward in Russia, and from the Eastward at most of the Scandinavian stations. Light from the Northward or North-Westward in Italy and Tunis, but very variable over Spain, Algeria, and the south of France. Subsequently backing to the South-Westward in all the more western parts of the United Kingdom. Increasing to a strong breeze from the North-Westward on the eastern shores of the North Sea.

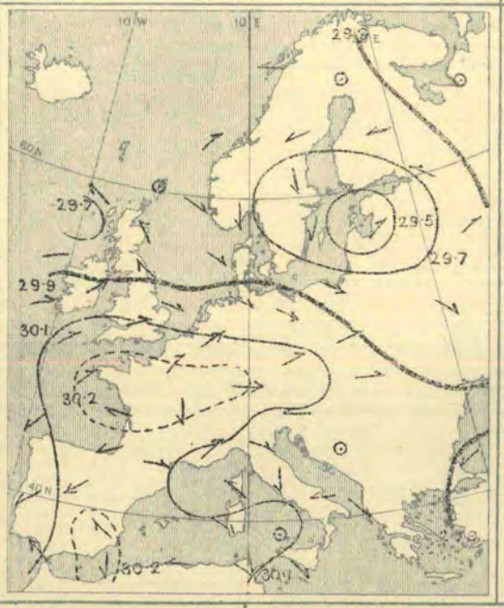
Barometer highest, 30·2 ins. and upwards in an anticyclone extending from the Bay of Biscay and France across the north-east of Spain to Algeria; 30·0 ins. and upwards over Russia. Lowest, 29·4 ins. and less in a well-marked depression lying in the neighbourhood of the Skager Rack. Depression subsequently moving slowly eastwards, but new disturbance beginning to approach our north-west coasts from the Atlantic. Shallow cyclonic system also appearing over the south of Portugal.

Friday, 14th August.

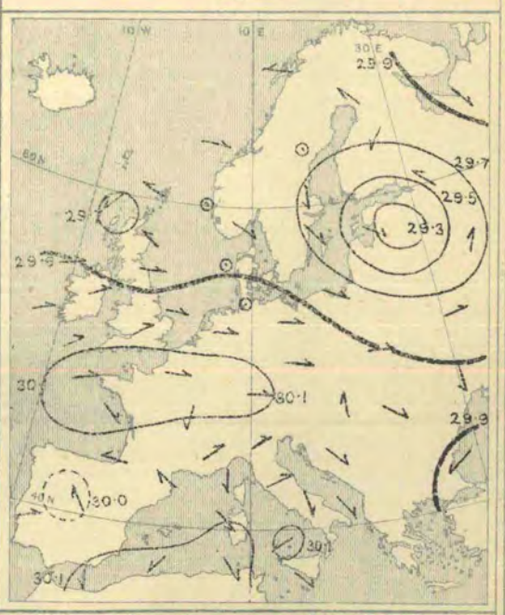
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine in the south and south-east of England, as well as over the greater part of the Continent, but dull over Finland, Sweden, and the Baltic, with rain at Riga. Dull also in all the more western and northern parts of the United Kingdom, with rain in the north of England, as well as at many of the Irish stations. Rain extending later to Scotland; large quantities falling in Russia and smaller amounts in many parts of Germany.

Temperature highest, 83° at Oporto, 81° at Barcelona, 79° at Brindisi, and 78° at Bilbao and Constantinople: above 70° in most parts of southern and eastern Europe, and above 65° at some of the English stations. Lowest, 49° at Archangel, 50° at Sumburgh Head, 54° at Wick, and 55° at Nairn, Aberdeen, and Leith; below 60° in the northern parts of our Islands generally, and also in most parts of northern and central Europe. Rising during day to a little above 75° at some of the inland English stations, and to between 80° and 90° over France and southern Europe generally, the highest readings of all being 100° at Madrid and 96° at Biarritz.

Wind moderate or fresh from the South-Westward over the greater part of Ireland and England, but light from the South-Eastward in Scotland. Light from Eastward over Finland and the north of Scandinavia; moderate from North-Westward in Denmark and the south of Norway; fresh or strong from the Westward over Germany and Austria, Easterly in the south-west of France, and North-Easterly in Spain, but variable in Italy and Austria. No important change occurring during day.

Barometer highest, 30·2 ins. and upwards in an anticyclone extending from the Bay of Biscay to south Germany, and also in a smaller system lying over the south-east of Spain. Lowest, 29·5 ins. and less in a well-marked depression over the Baltic Provinces; 29·7 ins. and less in a small shallow system lying off the west of Scotland. Former disturbance subsequently moving eastwards and growing deeper; latter system moving slowly north-eastwards. Decided fall of barometer setting in over France in evening.

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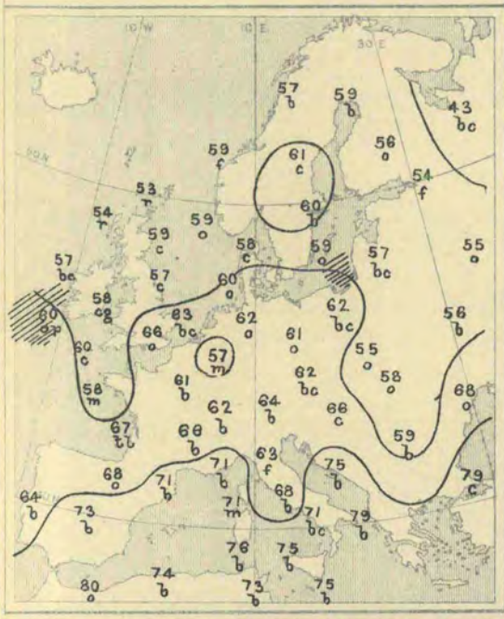
Saturday, 15th August.

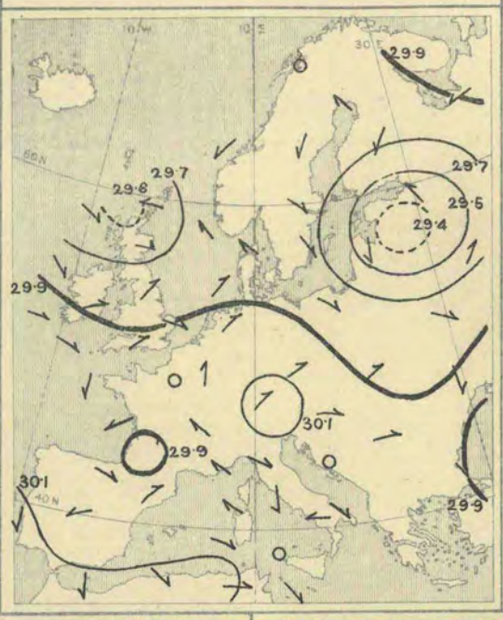
Temperature and Weather.

8 a.m.

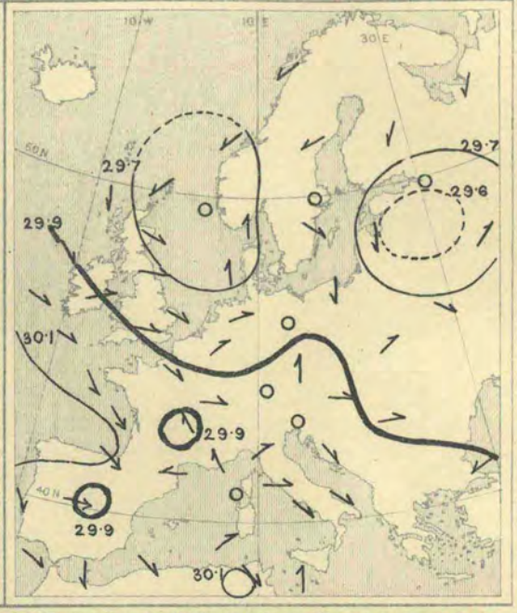


Barometer and Wind.

8 a.m.



6 p.m.



Weather varying greatly over the United Kingdom; fine in some places, but cloudy and showery in others; heavy rain falling in the Shetlands and Hebrides. Fine and bright over the greater part of the Continent, but dull over Finland, the Baltic, Denmark, and the north and east of Germany, with rain at Helsingfors and Memel; cloudy also in the west of France, with a thunderstorm at Rochefort. General improvement taking place over our Islands later, but sky becoming cloudy in France, and thunderstorms occurring at some of the German stations.

Temperature highest, 80° at Barcelona and Nemours, 79° at Brindisi and Constantinople, and 78° at Sfax; above 70° over the greater part of southern Europe, and varying between 60° and 65° in the south-east of England. Lowest, (1) 43° at Archangel, 54° at St. Petersburg, and 55° at Uleaborg, Helsingfors, and Moscow; (2) 53° at Sumburgh Head, 54° at Stornoway, and 55° at Malin Head; below 60° in most parts of north-western, northern, and central Europe, but a little above that level in the south of Scandinavia. Rising during day to between 65° and 70° over the greater part of the United Kingdom, and to 80° or more in most parts of France and southern Europe, the highest readings of all being 99° at Rochefort and 97° at Madrid.

Wind light or moderate from the Westward or South-Westward over the greater part of our Islands and central Europe, but South-Easterly on the eastern shores of the North Sea. North-Easterly in Finland, North-Westerly over the Baltic, and Westerly or South-Westerly over central Russia. Cyclonic circulation of light winds reported over the southern parts of France, but very variable breezes over Italy and Algeria. Subsequently veering to the Northward in the North of Scotland and shifting to the North-Westward over the greater part of France.

Barometer highest, 30·0 ins. and upwards in a large anticyclone covering the greater part of central and southern Europe, with the addition of France and the Channel, but below 29·9 ins. in a small shallow depression lying over the south-west of France. Lowest, 29·4 ins. and less in a well-defined cyclonic disturbance lying over the Baltic Provinces; 29·6 ins. and less in a shallow system lying off the north of Scotland. Both depressions subsequently moving eastwards; new but shallow disturbance appearing over central Spain in evening.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟿ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During the past week barometrical pressure has been high over all the more southern countries of Europe, the highest readings of all being found, usually, in an anticyclone lying over the Bay of Biscay and France. Numerous depressions have travelled eastwards from the Atlantic across the north of our Islands and the North Sea to the Baltic and Russia; so that, while the wind has been variable in the extreme south, and mostly Easterly in the far north, it has been usually Westerly (varying between South-West and North-West) in all other parts of Europe. The depressions observed, although well defined, have been mostly shallow; but on the 14th one of the systems increased considerably in depth on reaching the Baltic Provinces. At the close of the week there were no indications of any material change in the general conditions.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 188.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	36·9	?	35	?	EASTBOURNE	34·4	?	34	?
OSWALDKIRK (Yorkshire)	25·7	?	24	?	TORQUAY	32·4*	?	32*	?
WORKSOP	19·4	−14·3	19	−14	ARLEY COTTAGE (County Cavan)	21·3	?	20	?
THURCASTON (Leicestershire)	30·3	− 5·7	29	− 6	GUERNSEY	39·5*	?	39*	?

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

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VOL. VIII. No. 33.] *Third Series.* WEEK ENDING SATURDAY, 22ND AUGUST, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 194.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	71	42	60·6	50·5	55·2	1 above.	92	+12	0	0	1381	+166	621	+ 79
	1. SCOTLAND, EAST -	70	43	62·5	50·6	56·1	0 (average)	99	− 3	0	0	1555	− 34	670	+101
	2. ENGLAND, N.E. - -	72	48	61·9	51·4	56·3	2 below.	100	− 8	0	0	1565	−110	593	+ 95
	3. ENGLAND, EAST -	72	45	65·5	50·9	57·8	2 below.	111	− 9	0	0	1829	−130	689	+128
	4. MIDLAND COUNTIES	72	43	65·0	49·5	56·8	2 below.	104	−10	0	0	1839	−110	668	+116
	5. ENGLAND, SOUTH -	74	44	65·6	52·6	58·7	2 below.	117	−11	0	0	1981	−130	565	+149
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	70	44	63·5	50·9	56·8	0 (average)	104	+ 6	0	0	1718	+ 91	463	+ 46
	7. ENGLAND, N.W. -	70	48	63·4	52·9	57·8	1 below.	111	+ 2	0	0	1756*	+ 3	449	+ 35
	8. ENGLAND, S.W. -	70	43	62·4	51·2	56·5	3 below.	102	−15	0	0	1859	− 93	434	+118
	9. IRELAND, NORTH -	70	44	61·7	52·1	56·6	1 below.	102	− 1	0	0	1792	+ 44	391	+ 29
	10. IRELAND, SOUTH -	68	45	62·3	52·3	57·0	2 below.	105	− 5	0	0	1999*	+ 19	309	+ 31
	— CHANNEL ISLANDS -	68	53	64·4	56·0	60·0	2 below.	126	− 6	0	0	2119	− 31	162	+ 40

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 194.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	4	7	2 less.	146	− 4	28·6	+ 0·9	28	0	26	0	896	+ 34	28	0
	1. SCOTLAND, EAST -	4	15	8 more.	105	−18	15·2	− 3·7	20	− 9	20	−11	965	− 38	31	− 1
	2. ENGLAND, N.E. - -	5	13	7 more.	105	− 7	13·5	− 2·0	16	−13	16	−15	910	− 10	29	− 1
	3. ENGLAND, EAST -	5	16	11 more.	115	+ 6	15·2	− 0·2	31	− 8	31	−11	996	−110	32	− 4
	4. MIDLAND COUNTIES-	5	12	6 more.	109	0	15·5	− 1·8	31	− 6	31	− 6	966	− 21	31	− 1
	5. ENGLAND, SOUTH -	6	22	16 more.	103	− 2	16·3	+ 0·2	37	− 5	38	− 5	1122	+ 57	37	+ 2
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	5	11	1 more.	112	−18	19·0	− 9·7	24	−10	24	− 9	1032	+ 37	33	+ 1
	7. ENGLAND, N.W. - -	4	8	1 more.	102	−16	16·8*	− 2·9	27	− 8	26	− 8	944*	− 42	31	− 1
	8. ENGLAND, S.W. - -	5	22	14 more.	109	−12	20·5	− 2·4	30	−16	30	−14	1179	+ 21	39	+ 1
	9. IRELAND, NORTH -	6	16	8 more.	128	−12	16·9	− 4·5	18	−11	18	− 9	956	+ 43	31	+ 1
	10. IRELAND, SOUTH -	6	17	9 more.	116	−12	19·3	− 4·1	21	−15	21	−14	1037	− 13	34	0
	— CHANNEL ISLANDS -	6	22	17 more.	110	−18	17·0	− 1·2	50	− 5	51	− 4	1443	+ 85	47	+ 2

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has continued in a very unsettled condition generally. Rain has fallen almost daily over the greater part of the Kingdom, accompanied at times by thunder and lightning. The rain experienced over our southern and south-eastern counties during the evening and night of the 20th—21st was very heavy.

Temperature has not differed much from the mean in Scotland, but in all the English and Irish districts it has been below, the deficit ranging from 1° to 3°. The highest of the maxima were recorded during the earlier part of the period, and varied from 74° in "England S.," and 72° over the midland and eastern counties, to 68° in "Ireland S." and the "Channel Islands." The lowest of the minima, which were registered on rather irregular dates, ranged from 42° in "Scotland N." to 48° in "England N.E. and N.W.," and to 53° in the "Channel Islands."

Rainfall has been a little less than the mean in "Scotland N.," but more in all other districts; in all the more southern and eastern parts of England, the excess has been very large.

Bright Sunshine shows a deficit in almost all districts. The proportion of the possible amount of duration which was actually registered ranged from 51 per cent in the "Channel Islands," to 38 in "England S.," and to 16 in "England N.E."

Barometer and Wind.—Soon after the commencement of the period, a series of somewhat deep depressions passed north-north-eastwards over our extreme western and north-western coasts, causing the wind to blow freshly or strongly from between South and South-East in the west and north generally, and moderately from the same quarters in the south and east. These conditions continued until the 20th, when a depression of considerable and increasing intensity appeared off our south-west coasts, and, during the remainder of the period, moved east-north-eastwards over the southern parts of England to the North Sea. This system produced fresh or strong winds from the Northward and North-Westward in the west, moderate or fresh gales from the Westward on our southern coasts, and the heavy rain noted above.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 193 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	60	42	57·7	49·0	53·1	+ 0·4	78	0	2	0·55	−0·17	*	*	*	*
	Stornoway	66	43	59·3	49·6	54·2	+ 0·5	85	0	3	0·43	−0·40	26·5	− 0·4	25	− 1
	Wick	61	46	58·7	49·9	54·0	− 0·2	84	0	5	1·68	+1·10	*	*	*	*
	Lairg 𝔖	63	45	60·3	49·4	54·5	+ 0·2	88	0	4	0·37	−0·25	*	*	*	*
	Glencarron 𝔖	70	45	61·4	50·0	55·4	+ 1·7	94	0	5	0·56	−0·93	*	*	*	*
	Fort Augustus 𝔖	69	47	62·2	52·8	57·2	+ 1·7	106	0	5	0·39	−0·30	20·5	?	20	?
	Fort William 𝔖	71	49	64·3	52·7	58·2	+ 2·2	113	0	6	1·22	−0·08	35·4	?	34	?
1. SCOTLAND, E.	Nairn	70	43	63·0	50·0	56·1	− 0·2	99	0	3	0·39	−0·22	*	*	*	*
	Aberdeen	64	44	59·1	51·4	55·0	− 1·0	91	0	5	2·02	+1·34	24·2	−10·2	23	−11
	Braemar 𝔖	63	45	58·7	49·2	53·7	+ 0·5	82	0	5	1·15	+0·31	9·2†	? †	9†	? †
	Ochtertyre 𝔖	70	49	67·1	51·7	58·9	+ 2·9	118	0	3	1·25	+0·45	*	*	*	*
	Leith	70	47	63·9	51·7	57·4	− 0·5	108	0	2	0·93	+0·34	*	*	*	*
	Marchmont 𝔖	68	43	62·9	49·3	55·7	+ 0·2	96	0	6	3·47	+2·68	23·5	?	23	?
2. ENGLAND, N.E.	Alnwick Castle	62	49	59·3	50·7	54·7	− 1·7	89	0	3	3·06	+2·36	*	*	*	*
	Durham	72	48	64·1	50·7	57.0	− 0·6	105	0	5	1·87	+1·25	18·7	−15·1	18	−15
	Shields	64	49	60·6	50·1	55·0	− 2·4	91	0	6	1·18	+0·56	*	*	*	*
	Scarborough 𝔄	64	50	60·8	53·3	56·8	− 1·1	104	0	6	0·57	−0·02	*	*	*	*
	York	69	48	64·7	49·4	56·6	− 2·0	102	0	7	1·04	+0·46	17·7	−15·1	18	−14
	Spurn Head	66	53	62·1	53·9	57·8	− 1·6	111	0	4	0·26	−0·16	*	*	*	*
3. ENGLAND, E.	Hillington 𝔄	72	47	65·7	50·4	57·6	− 2·1	109	0	6	1·54	+0·94	24·4	−13·8	24	−18
	Yarmouth	65	47	63·3	53·1	57·9	− 2·1	111	0	5	1·41	+0·93	*	*	*	*
	Geldeston	71	46	66·1	50·7	57·9	− 1·9	111	0	5	1·29	+0·86	34·4	− 8·3	34	− 9
	Cambridge	72	45	67·7	50·6	58·6	− 2·0	116	0	4	2·08	+1·58	33·9	− 5·1	34	− 6
	Rothamsted	68	46	64·9	49·9	57·0	− 2·4	105	0	5	1·68	+1·13	31·8	?	32	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	72	48	68·3	51·0	59·1	− 0·1	120	0	5	0·45	−0·07	*	*	*	*
	Loughborough	71	48	66·4	52·0	58·8	− 1·4	118	0	3	0·72	+0·14	*	*	*	*
	Stamford (Ketton Hall)	70	44	67·6	50·0	58·3	− 1·8	114	0	4	1·12	?	*	*	*	*
	Cheadle 𝔄	67	45	61·4	49·3	55·0	− 1·9	91	0	5	1·12	+0·31	*	*	*	*
	Churchstoke 𝔄	67	44	62·4	46·9	54·2	− 2·2	85	0	6	1·26	+0·66	28·6	− 8·1	29	− 8
	Hereford 𝔄	70	46	65·1	48·7	56·5	− 3·1	102	0	5	1·60	+1·04	*	*	*	*
	Cirencester	67	43	64·1	46·9	55·0	− 3·2	91	0	6	1·72	+1·02	38·7	− 1·9	39	− 1
	Oxford	68	46	64·4	51·3	57·5	− 2·8	109	0	6	1·65	+1·14	30·8	−10·0	31	−10
5. ENGLAND, S.	London	71	46	67·0	51·4	58·7	− 2·3	117	0	6	2·10	+1·60	2·6 †	− 9·2†	28†	− 9†
	Strathfield Turgiss 𝔄	71	44	66·6	49·2	57·4	− 3·1	108	0	6	1·79	+1·31	*	*	*	*
	Dungeness	67	47	65·6	55·4	60·2	− 1·3	127	0	6	1·90	+1·43	*	*	*	*
	Hastings (St. Leonards)	67	50	64·1	53·6	58·5	− 3·2	116	0	6	1·67	+1·13	41·3	− 3·7	42	− 3
	Southampton	74	48	67·9	52·4	59·7	− 1·9	124	0	6	2·29	+1·70	43·0	− 2·2	43	− 3
	Hurst Castle	69	50	65·1	55·6	60·1	− 1·6	127	0	5	2·78	+2·26	*	*	*	*
	Stowell 𝔄	66	45	63·2	50·8	56·6	− 2·8	102	0	5	2·50	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	70	48	64·1	50·8	57·1	+ 0·6	106	0	3	0·97	−0·22	*	*	*	*
	Glasgow	69	48	63·7	52·1	57·6	+ 1·3	109	0	5	0·94	+0·09	27·7	− 1·3	27	− 1
	Ardrossan	66	49	64·3	52·3	57·9	+ 0·2	111	0	4	0·59	−0·25	*	*	*	*
	Glenlee 𝔖	69	45	63·4	49·5	56·0	+ 0·4	98	0	5	1·46	+0·48	*	*	*	*
	Douglas (Isle of Man)	66	44	61·9	49·9	55·5	− 1·2	95	0	6	1·36	+0·55	20·6	−17·5	20	−18
7. ENGLAND, N.W.	Newton Reigny															
	Stonyhurst	66	51	62·4	52·3	57·1	− 0·9	106	0	4	1·15	+0·08	25·8	− 7·6	26	− 7
	Blackpool 𝔄	69	52	64·1	53·7	58·6	− 0·3	116	0	4	1·03	+0·33	32·6	− 2·4	32	− 3
	Manchester	68	49	63·9	51·7	57·3	− 0·9	107	0	5	0·78	−0·01	*	*	*	*
	Liverpool Obsy. (Bidston)	68	52	64·0	53·0	58·2	− 1·3	113	0	6	0·93	+0·28	*	*	*	*
	Llandudno 𝔄	70	48	63·6	52·7	57·8	− 1·9	111	0	3	0·53	−0·12	21·3	−13·8	21	−14
	Holyhead	67	51	62·4	53·9	57·9	− 1·0	111	0	3	0·38	−0·26	*	*	*	*
8. ENGLAND, S.W.	Llandovery	70	43	64·7	46·3	55·0	− 3·9	91	0	6	1·31	+0·27	*	*	*	*
	Pembroke	63	54	60·4	55·0	57·5	− 1·4	109	0	6	1·55	+0·92	29·5	−15·5	30	−15
	Arlington (N. Devon)	65	47	61·4	49·1	54·9	− 2·9	90	0	6	2·56	+1·44	*	*	*	*
	Cullompton 𝔄	66	45	63·9	50·3	56·7	− 2·1	103	0	4	3·05	+2·44	26·5	−14·7	27	−14
	Falmouth	65	51	62·7	53·2	57·7	− 2·2	110	0	6	2·85	+2·05	34·1	−12·3	34	−13
	Plymouth															
	Prawle Point	64	52	61·0	53·4	57·0	− 2·7	105	0	4	1·63	+1·16	*	*	*	*
9. IRELAND, N.	Malin Head	63	50	59·4	53·0	56·0	− 1·2	98	0	5	1·19	?	*	*	*	*
	Londonderry	70	48	64·4	52·4	58·0	+ 0·4	112	0	6	1·59	+0·74	*	*	*	*
	Mullaghmore	63	52	61·7	54·1	57·7	− 0·3	110	0	6	1·14	+0·34	*	*	*	*
	Belmullet	64	51	60·7	53·7	57·0	− 1·8	105	0	7	0·73	?	*	*	*	*
	Markree Castle	65	45	62·8	50·9	56·5	0·0	102	0	6	2·21	+1·41	17·8	−10·4	18	−10
	Brookeborough	64	47	62·0	51·3	56·3	0·0	100	0	6	2·35	+1·57	*	*	*	*
	Armagh	64	46	62·1	51·3	56·4	− 0·8	101	0	6	1·04	+0·39	16·7	−10·0	17	− 9
	Donaghadee	63	54	60·7	54·6	57·5	+ 0·8	109	0	7	1·65	+0·95	*	*	*	*
	Edgeworthstown	64	44	61·9	? 47·6	? 54·3	? − 2·5	? 86	0	?	2·20	+1·42	*	*	*	*
10. IRELAND, S.	Dublin	64	50	62·2	52·9	57·3	− 1·6	107	0	7	1·17	+0·55	20·6	−15·7	21	−15
	Parsonstown	64	48	62·4	51·1	56·4	− 1·6	101	0	5	1·85	+1·08	17·0	−15·8	17	−15
	Kilkenny	64	45	62·1	50·0	55·7	− 2·7	96	0	6	1·73	+0·94	*	*	*	*
	Waterford	68	47	64·6	50·9	57·3	− 2·0	107	0	6	2·52	+1·69	*	*	*	*
	Roche's Point	64	51	62·1	53·3	57·4	− 1·2	108	0	4	1·51	+0·66	*	*	*	*
	Valencia	64	52	61·6	54·4	57·7	− 1·1	110	0	6	1·66	+0·59	26·1	−10·1	26	−10
	Killarney	64	51	61·8	53·0	57·1	− 1·4	106	0	7	2·14	?	*	*	*	*
	Foynes	64	51	61·9	52·9	57·1	− 1·0	106	0	6	1·33	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	67	54	63·1	55·3	59·0	− 1·6	119	0	6	3·00	+2·44	*	*	*	*
	Jersey	68	53	65·7	56·7	60·9	− 1·7	132	0	5	1·41	+0·87	50·3	−4·4	51	− 4

Stations marked 𝔄 are in connection with the Royal Meteorological Society, and those marked 𝔖 with the Scottish Meteorological Society.

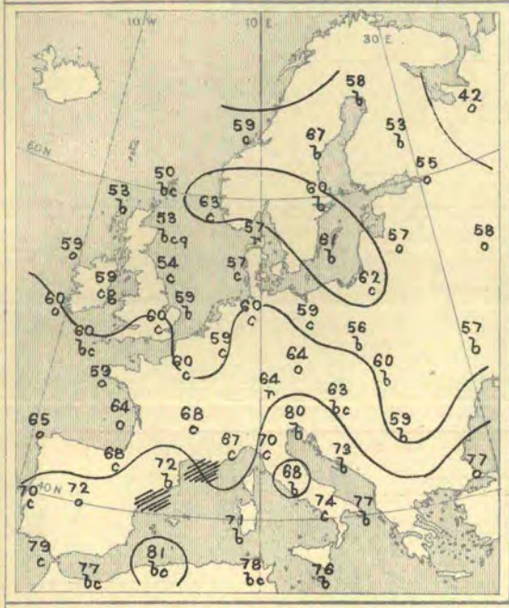
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

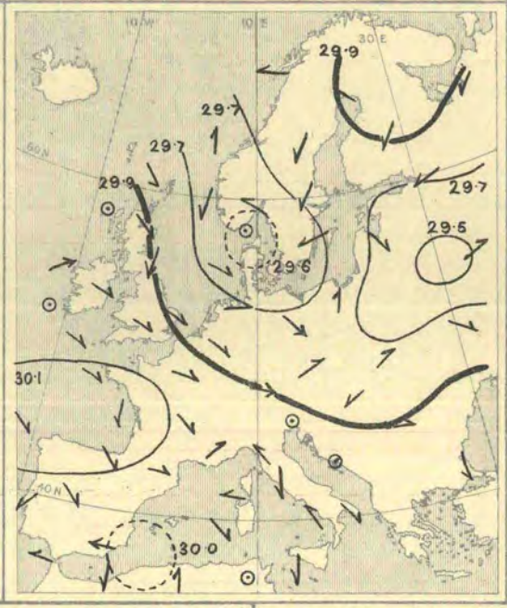
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 16th August.

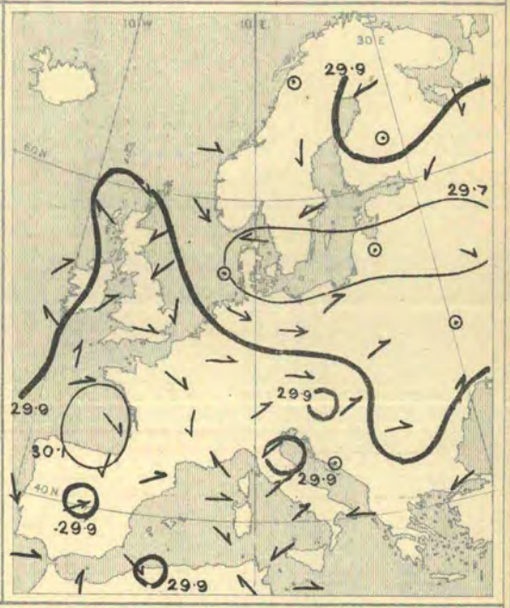
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fair or fine over by far the greater portion of Europe, but dull on the west coasts of Ireland and France, as well as at many of the German stations, and rainy in Denmark. Heavy rain setting in later over the south of Ireland; large quantities reported also in some parts of Germany and Austria, with thunderstorms in the former country.

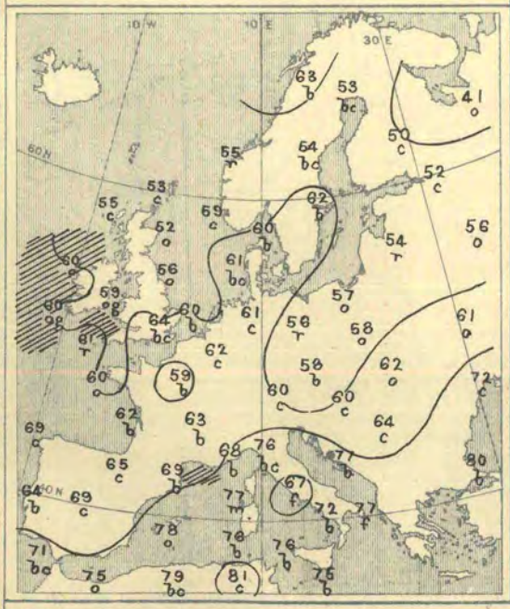
Temperature highest, 81° at Algiers, 80° at Trieste, 79° at San Fernando, and 78° at Barcelona and La Calle; above 70° in most parts of southern Europe. Lowest, (1) 42° at Archangel, 53° at Uleaborg and Kuopio, and 55° at St. Petersburg; (2) 50° at Sumburgh Head, 51° at Wick, and 53° at Stornoway, Nairn, and Aberdeen; above 60° at several of the Scandinavian stations, but below that level in all but the extreme southern parts of the United Kingdom. Remaining below 60° all day at some of our northern and north-eastern stations, but rising to between 65° and 69° over our eastern, midland, and southern counties. Exceeding 70° in France, and reaching 80° or more in most parts of southern Europe, the highest readings of all being 98° at Madrid and 91° at Florence and San Fernando.

Wind light from the North-Westward over Great Britain and France, but backing to the South-Westward or Southward in Ireland; varying between North and East in Spain; light and variable in Austria, Italy, and Algeria. Moderate from the Westward over Germany, but Easterly or North-Easterly over Scandinavia and northern Russia. Subsequently backing to the South-Eastward in the west of Ireland and to the South-Westward on other parts of our western coasts. Shifting to the North-Eastward on the east coasts of Great Britain.

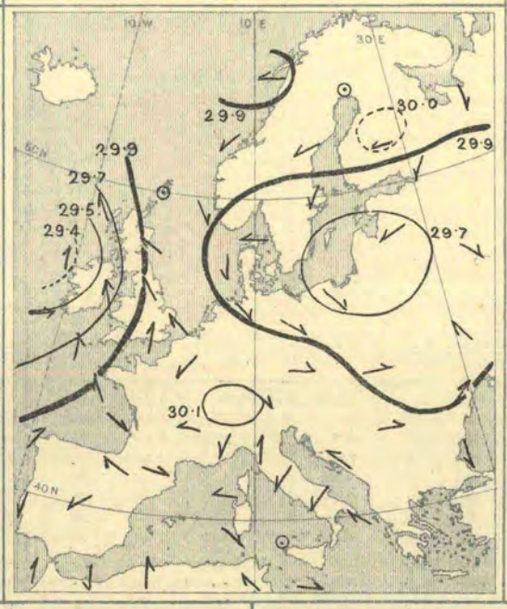
Barometer highest, 30·1 ins. and upwards in an anticyclone lying over the Bay of Biscay, the west of France, and the north of Spain; 29·9 ins. and upwards over Lapland. Lowest, 29·5 ins. and less in a small depression lying over central Russia; 29·6 ins. and less in another system over the north of Denmark. Danish depression subsequently moving slowly eastwards and partially filling up, but new disturbance beginning to approach the Irish coasts from the south-west.

Monday, 17th August.

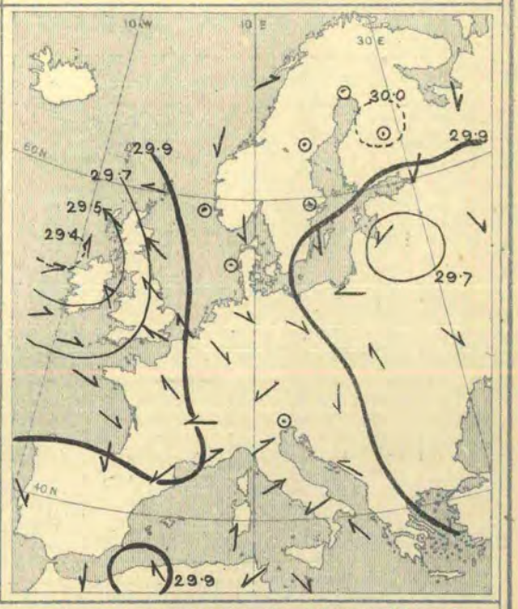
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather rainy over the western parts of the United Kingdom, as well as at some of the German stations. Fair or fine in nearly all other parts of Europe, but dull over the greater portion of Russia. Rain falling during day over nearly the whole of the United Kingdom, as well as at several of the Continental stations—amounts large in the west and north of our Islands, the heaviest of all being 1·1 ins. at Donaghadee, and 0·9 ins. at Aberdeen. Thunderstorm occurring at Moscow.

Temperature highest, 81° at La Calle, 80° at Sfax and Constantinople, and 79° at Bilbao and Aumale; above 70° in most parts of southern and eastern Europe, and above 60° in the south-east of England. Lowest, 41° at Archangel, 50° at Kuopio, and 52° at St. Petersburg and Aberdeen; below 55° over the northern parts of Russia and Sweden, and also in the north and east of Scotland, but above 60° in the north-west of Norway. Remaining below 60° all day at many of our own western and northern stations, but exceeding 70° in the south-east of England, exceeding 80° in several parts of France, and exceeding 90° in some parts of Italy, the highest reading of all being 95° at Brindisi.

Wind Southerly or South-Easterly over the greater part of our Islands and the west of France, but South-Westerly in the south of Ireland; strong in force at some of our western stations. Light from the North-Eastward over Scandinavia and northern Russia, from the Northward or North-Westward in Denmark, from the Westward over Germany, and from the South-Westward in Poland. Rather variable over southern Europe, but chiefly North-Easterly. Subsequently increasing to a gale from the South-Eastward in the north of Scotland; veering to Westward and moderating on our extreme west and south-west coasts.

Barometer highest, 30·0 ins. and upwards in an anticyclone lying over France, the Netherlands, and south Germany, as well as in a smaller system lying over central Finland. Lowest, 29·4 ins. and less in a rather deep depression lying off the west of Ireland; 29·7 ins. and less in a shallower system over the Baltic Provinces and their immediate neighbourhood. Depression in west subsequently moving northwards; secondary disturbances appearing over Ireland and England; shallow system over Baltic Provinces travelling slowly eastwards.

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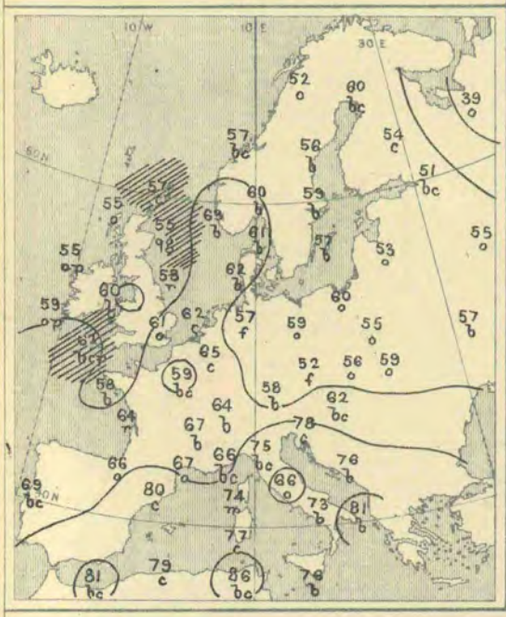
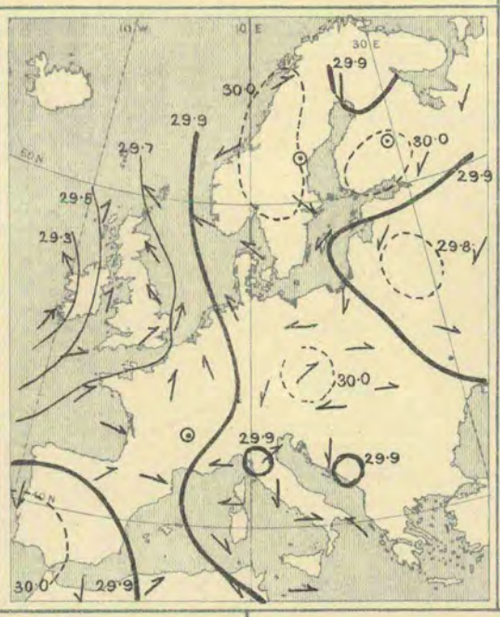
Tuesday, 18th August.

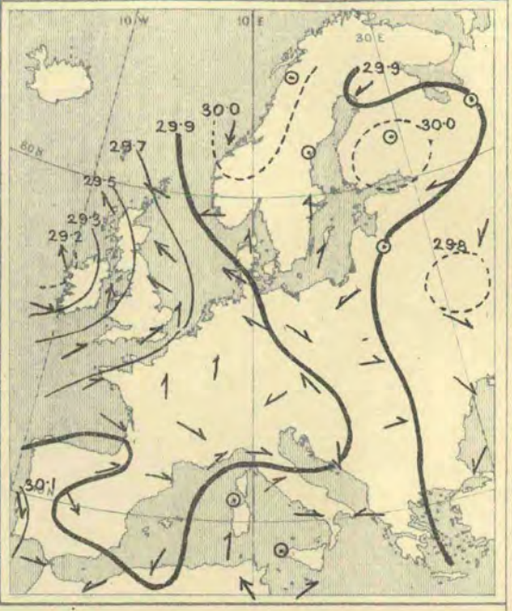
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather cloudy and showery in many parts of the United Kingdom and France; fine in most other countries, but dull at several of the Russian and German stations. Heavy showers falling during day in many parts of western Europe, the largest amount of rain reported next morning being 0·7 in. at Wick, Hurst Castle, and Biarritz. Thunderstorms occurring in south Wales, and also in some parts of France and eastern Germany.

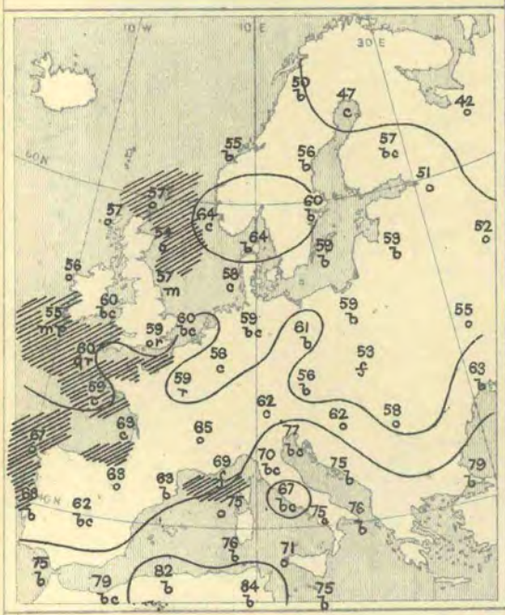
Temperature highest, 86° at La Calle, 81° at Brindisi and Oran, 80° at Barcelona, and 79° at Algiers; above 70° in nearly all parts of southern Europe. Lowest, 39° at Archangel, 50° at Helsingfors, 51° at Hangö and St. Petersburg, and 52° at Bodö; below 60° over nearly all the northern half of Europe, but a little above that point over Denmark and the south of Norway. Rising during day to 70° or a little above in some of the inland parts of Great Britain, to 80° or more in the south and east of France, and to 90° or more at several of the Italian and Algerian stations.

Wind moderate to strong from the South-Eastward over the northern parts of our Islands, and light from the same quarter on the eastern shores of the North Sea. Moderate from the South-Westward or Southward over the south of the United Kingdom, Westerly in the west and south of France. North-Easterly over the Baltic and northern Russia, North-Westerly or Westerly over the south of Russia. Variable in Spain, Italy, and Algeria. Subsequently veering to the Westward in the south-west of our Islands; no important change elsewhere.

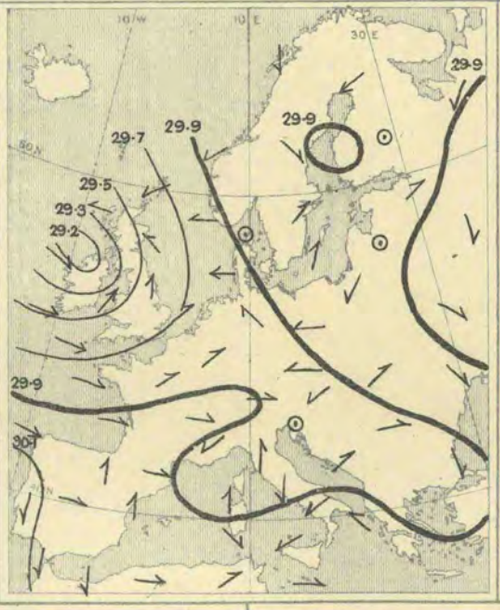
Barometer highest, 30·0 ins. and upwards in four areas—one lying over Scandinavia, another over Finland, a third over Bohemia, and a fourth over the extreme south of Spain. Lowest, 29·3 ins. and less in a rather deep depression lying off the west of Ireland, 29·8 ins. and less in a shallow system over western Russia. Depression in west subsequently moving slowly north-eastwards, and barometer rising again in the south and south-west of our Islands.

Wednesday, 19th August.

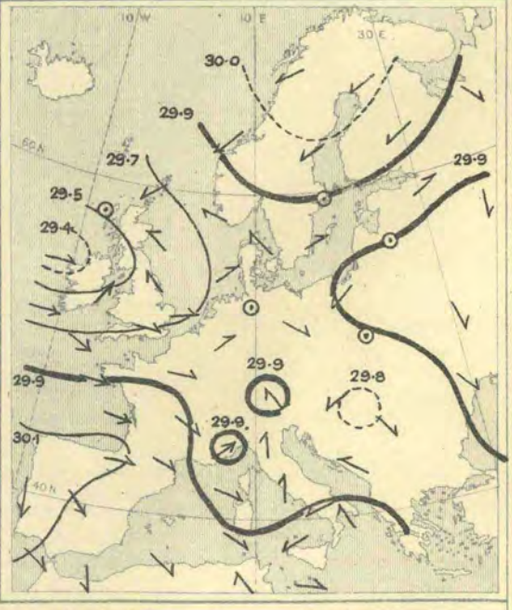
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather changeable and showery over the greater part of the United Kingdom and rainy in western Germany and the north of France, but fine in nearly all other parts of the Continent. Thunderstorms occurring later over Germany and the east and south-east of England; heavy rain falling in some parts of Austria.

Temperature highest, 84° at Tunis, 82° at Algiers, 81° at Sfax, and 79° at Oran and Constantinople; above 70° in most parts of southern Europe, and above 60° in the south of Scandinavia. Lowest, 42° at Archangel, 47° at Haparanda, 50° at Uleaborg, and 51° at St. Petersburg; a little below 55° at some of our own northern stations, and also over central Ireland. Rising during day to between 65° and 70° in most parts of Great Britain; exceeding 80° in the south of France, and exceeding 90° in Italy, the highest European readings of all being 95° at Brindisi and Palermo and 91° at Cagliari.

Wind fresh or strong from the Westward or South-Westward on our south and south-west coasts, and moderate from the same quarters over France and the Netherlands. Light or moderate from the South-Eastward over Denmark, North Germany, and the north of our Islands, from the Eastward in the west of Norway, and from the North-Eastward at some of the Baltic stations. Cyclonic circulations of light winds reported over Finland and Sweden. Light from the North-Westward in the south of Russia, variable over Spain, Italy, and Algeria. Moderate Southerly winds setting in later at many of the Italian stations.

Barometer highest, 30·1 ins. and upwards in an anticyclone extending from the westward over Portugal and the south-west of Spain; 30·0 ins. and upwards in another system lying over the north of Scandinavia. Lowest, 29·2 ins. and less in a well-marked depression lying off the north-west of Ireland; 29·8 ins. and less in a large shallow system lying over Russia. Western depression filling up slowly during day and barometer rising in all parts of our Islands. Rather deep disturbance appearing in evening over the extreme south-east of France.

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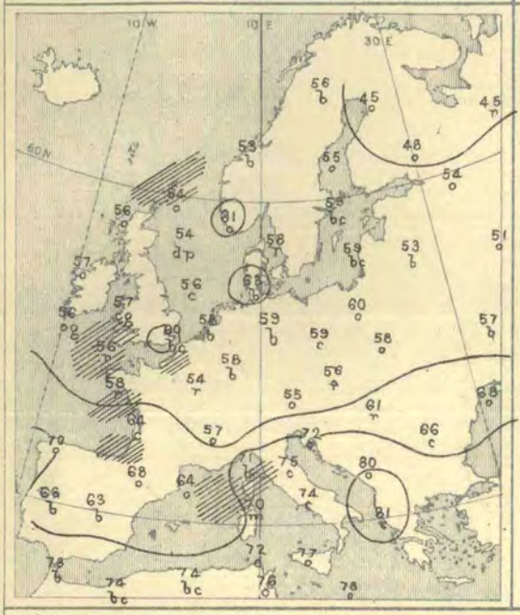
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 20th August.

Temperature and Weather. 8 a.m.



Weather cloudy in most parts of Europe, with passing showers at several of our own northern stations, and steady rain in the south-west of England and the north of France, as well as in many parts of Denmark and Austria. Fine in Sweden and the north of Norway, as well as over Spain, Algeria, and the south of France. Heavy rain falling later over all the more southern parts of England, as well as in the Netherlands and the north of France; amounts exceeding 1 in. in many places. Thunder heard during day at Shields and Scilly.

Temperature highest, 81° at Brindisi, 80° at Lésina, 78° at Malta, and 77° at Palma and Palermo; above 70° in most parts of southern Europe. Lowest, 45° at Archangel and Haparanda, 46° at Uleaborg, 48° at Kuopio, 50° at Helsingfors, and 51° at Moscow; below 55° in the northern parts of Russia and Scandinavia generally, as well as in the north and east of Scotland. Daily maxima below 65° in many parts of the United Kingdom, and below 60° at some of our south-western and extreme northern stations, but thermometer exceeding 70° over the central parts of France, and exceeding 80° over southern Europe generally, the highest readings of all being 95° at Brindisi and 99° at Madrid.

Barometer and Wind. 8 a.m. and 6 p.m.

Wind light or moderate from the South-Westward over England, the Netherlands, Germany, and the northern parts of Ireland and France, but Easterly over Scandinavia and Scotland, as well as at Valencia Island. Moderate to strong from the Westward or North-Westward over the south of France and the greater part of Italy, but South-Easterly at the Adriatic stations. Easterly or North-Easterly in Spain, variable in Russia and Austria. Subsequently increasing to a moderate or fresh gale from the Westward (South-West to North-West) at some of the Channel stations.

Barometer highest, 30·1 ins. and upwards in an elongated area stretching across Spain and the western parts of the Mediterranean to Tunis; 30·0 ins. and upwards over the north of Scandinavia, and also in the south of Russia. Lowest, 29·5 ins. and less in a depression lying off the north-west of Ireland; 29·7 ins. and less in two other disturbances lying respectively over the Danish end of the Baltic and over the northern parts of the Adriatic. Small depression of increasing intensity appearing later over the south-west of England and moving eastwards; barometer falling quietly at all our southern stations.

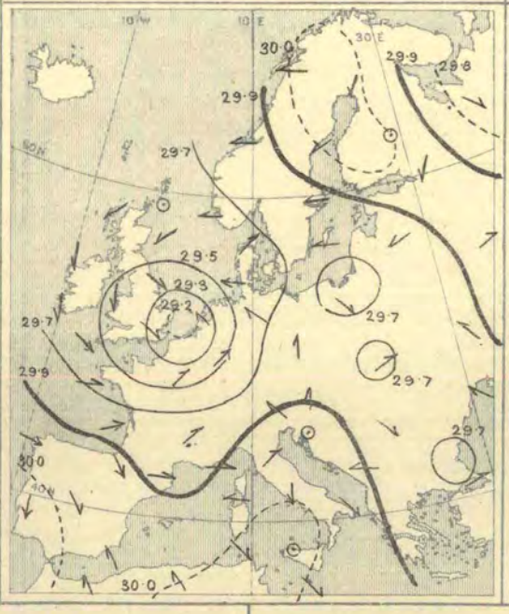
Friday, 21st August.

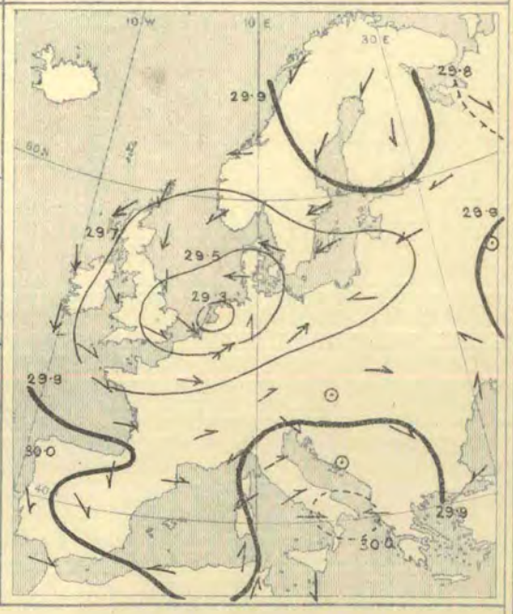
Temperature and Weather. 8 a.m.

Weather more or less cloudy in all but the southern countries of Europe, with heavy rain over the greater part of England, the Netherlands, and central parts of France. Rain ceasing later in most parts of England, but showers falling in Ireland and Scotland. Thunderstorms occurring in several parts of Great Britain and France during the evening or night. Rain over the Baltic and Germany; very heavy rain (1·2 ins.) at Scilly.

Temperature highest, 83° at Constantinople, 81° at Aumale, 79° at Brindisi, and 78° at Barcelona; above 70° at most of the Mediterranean and Adriatic stations. Lowest, 42° at Archangel, 47° at Haparanda, 49° at Helsingfors, and 50° at St. Petersburg and Moscow; below 55° in many parts of the United Kingdom, but reaching 60° or a little more at several of the Scandinavian stations. Daily maxima below 65° in nearly all parts of the United Kingdom, and below 60° at most of our northern stations, but thermometer rising to between 70° and 80° in France, to upwards of 80° over Italy, to 91° at Madrid, and to 104° at Biskra.

Barometer and Wind. 8 a.m. and 6 p.m.





Wind moderate or fresh from the Eastward in Scandinavia and Denmark, and light or moderate from the North-Eastward in the north of our Islands. Moderate from the North-Westward on our west and south-west coasts. Strong from West over the Channel and Bay of Biscay, and from the South-Westward or Southward in Belgium and the east of France; light from the South-Eastward in Germany. Variable over the greater part of southern and eastern Europe.

Barometer highest, 30·0 ins. and upwards in three areas: one lying over the north of Scandinavia, another over the south of Russia, and a third over the south-western parts of the Iberian Peninsula. Lowest, 29·2 ins. and less in a well-marked and rather deep depression lying off the south-east of England; 29·6 ins. and less in a small system near the Gulf of Dantzic. Former disturbance subsequently moving slowly north-eastwards and barometer rising briskly over England.

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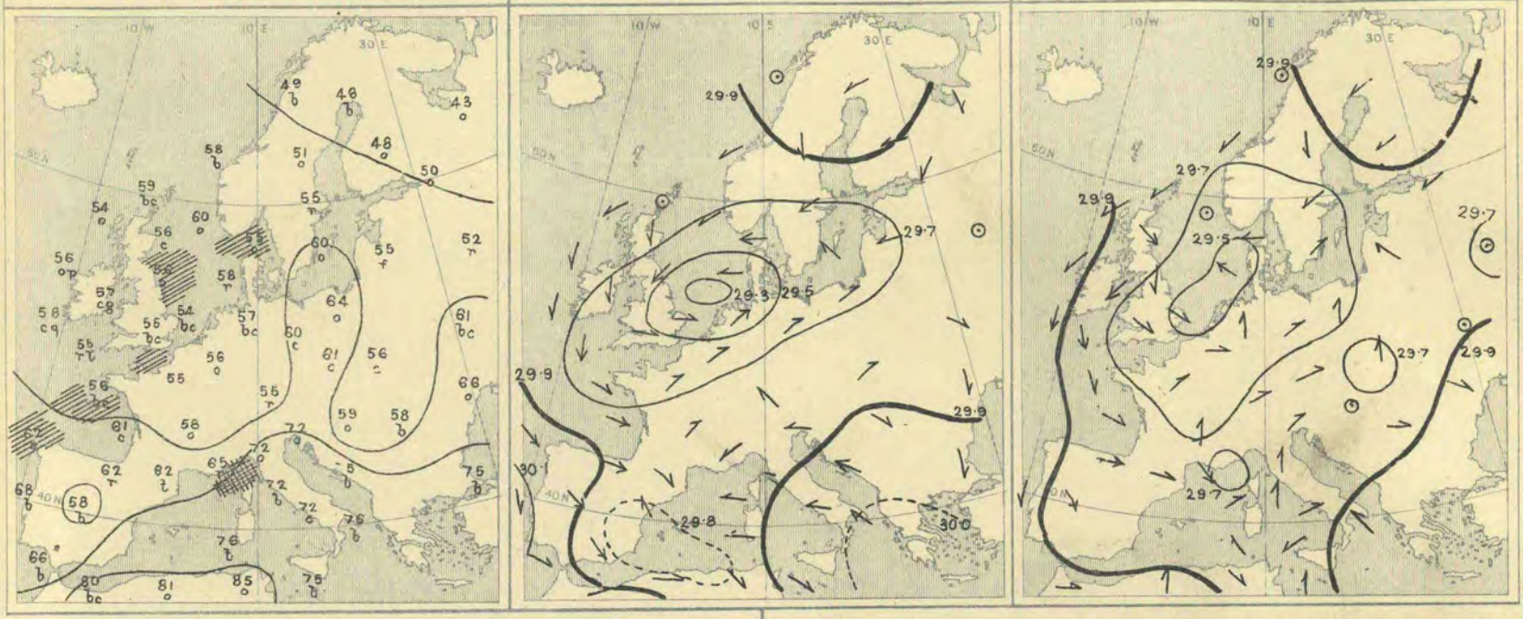
Saturday, 22nd August.

Temperature and Weather. — 8 a.m.

Barometer and Wind. — 8 a.m. | 6 p.m.



Weather in morning still unsettled over all the western and central parts of Europe, but improving in the extreme north, and also over the north-western parts of the United Kingdom. Rain later in moderate or small quantities, except in the extreme north and north-west, and thunderstorms in several places.

Temperature not differing much from the average at 8 a.m. over our Islands; morning readings as high as 80° to 85° over the greater part of Algeria and Tunis, and exceeding 70° at most of the Mediterranean stations; below 60° over all the northern and north-western countries, and as low as 43° at Archangel, 45° to 49° over Lapland, 48° at Kuopio, 50° at St. Petersburg. Rising later to between 60° and 65° over the United Kingdom and north of France, to between 70° and 80° over Austria, to between 80° and 86° over Italy, and to 90° and 104° over Algeria.

Wind Easterly over the most northern countries, Westerly (North-East to North-West) over Ireland and England, Westerly in France, South-Westerly over the Netherlands and north Germany. Very variable over the Mediterranean, but mainly Easterly on the northern shores. Backing Northwards over Norway later, and a well defined hemi-cyclonic circulation setting in over the north-eastern part of the Mediterranean and north of Italy.

Barometer highest, 30·0 ins. and more to 29·9 ins. over south-eastern Europe and the neighbouring parts of the Mediterranean, as well as over the western half of the Iberian Peninsula and adjacent parts of the Atlantic; 29·9 ins. and more over northern Europe. Lowest, 29·3 ins. and less to 29·5 ins. in a well-marked depression lying over the southern half of the North Sea. Some shallow secondary systems found over England. Rising steadily over our Islands later, falling over central Europe.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇛ = a heavy gale; ⟹ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The distribution of pressure over Europe has been very complex. During the greater part of the week two anticyclonic systems were observed, one over or to the south-westward of the Spanish Peninsula, the other over the northern parts of Scandinavia and Russia. On the 17th and 18th a broad "col" extended from one high-pressure area to the other, while two well-marked depressions travelled northwards along our western coasts. Over the more western countries the type of weather at this time was therefore southerly, but in the eastern countries it was northerly. After the 18th, however, the "col" disappeared, and numerous depressions were formed over the more central parts of the Continent. The most important of these was a disturbance of increasing intensity, which first appeared off the south-west of our Islands on the morning of the 20th. In the course of the ensuing 24 hours the system grew rapidly deeper (a process which was accompanied by very heavy rains) and moved in an east-north-easterly direction across the south and south-east of England to the North Sea and Denmark, where it began to disperse. During the passage of the depression a fresh to strong gale from the Westward was experienced over the English Channel. The depressions observed over central Europe were mostly small and shallow, but served to keep the weather in a very unsettled showery state, especially over Germany.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 194.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	24·5	?	24	?	EASTBOURNE	37·5	?	38	?
OSWALDKIRK (Yorkshire)	11·2	?	11	?	TORQUAY	29·8 *	?	30 *	?
WORKSOP	24·1	−8·8	24	−9	ARLEY COTTAGE (County Cavan)	18·6	?	18	?
THURCASTON (Leicestershire)	32·8	−8·0	33	−2	GUERNSEY	44·1 *	?	45 *	?

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

Judd & Co Ltd Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 34.] *Third Series.* WEEK ENDING SATURDAY, 29TH AUGUST, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 200.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	67	38	58·3	47·4	52·5	1 below.	74	− 3	0	0	1455	+159	621	+ 79
	1. SCOTLAND, EAST -	67	37	61·1	47·7	54·0	1 below.	84	−13	0	0	1639	− 50	670	+101
	2. ENGLAND, N.E. - -	67	41	61·5	50·0	55·4	2 below.	94	− 9	0	0	1659	−123	593	+ 95
	3. ENGLAND, EAST -	69	46	64·3	52·2	57·9	1 below.	111	− 4	0	0	1940	−138	689	+128
	4. MIDLAND COUNTIES	68	41	62·9	50·2	56·3	2 below.	100	−10	0	0	1939	−123	668	+116
	5. ENGLAND, SOUTH -	70	48	64·2	53·8	58·7	2 below.	117	− 7	0	0	2098	−140	565	+149
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	65	37	60·0	48·7	54·0	2 below.	84	−11	0	0	1802	+ 78	463	+ 46
	7. ENGLAND, N.W. -	65	46	61·0	52·0	56·2	2 below.	99	− 7	0	0	1855	− 8	449	+ 35
	8. ENGLAND, S.W. -	68	40	61·5	51·2	56·1	3 below.	99	−14	0	0	1958	−112	434	+118
	9. IRELAND, NORTH -	66	36	60·3	49·0	54·4	2 below.	87	−13	0	0	1879	+ 30	391	+ 29
	10. IRELAND, SOUTH -	65	41	61·1	50·1	55·3	3 below.	93	−13	0	0	2092	+ 1	309	+ 31
	— CHANNEL ISLANDS -	69	52	63·6	55·8	59·5	2 below.	123	− 7	0	0	2242	− 38	162	+ 40

Rainfall.

	DISTRICTS. (See p. 200.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	6	12	3 more.	152	− 3	29·8	+ 1·2
	1. SCOTLAND, EAST -	5	10	3 more.	110	−17	16·2	− 3·4
	2. ENGLAND, N.E. - -	6	10	4 more.	111	− 5	14·5	− 1·6
	3. ENGLAND, EAST -	5	8	3 more.	120	+ 6	16·0	+ 0·1
	4. MIDLAND COUNTIES-	6	15	8 more.	115	+ 3	17·0	− 0·9
	5. ENGLAND, SOUTH -	6	13	7 more.	103	0	17·6	+ 1·0
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	5	19	9 more.	117	−17	20·9	− 8·8
	7. ENGLAND, N.W. - -	6	22	14 more.	108	−14	19·0	− 1·4
	8. ENGLAND, S.W. - -	6	22	14 more.	115	−10	22·7	− 1·0
	9. IRELAND, NORTH -	6	19	11 more.	134	−10	18·8	− 3·4
	10. IRELAND, SOUTH -	6	17	8 more.	122	−10	21·0	− 3·2
	— CHANNEL ISLANDS -	6	17	11 more.	116	−16	18·7	− 0·1

Bright Sunshine.

	DISTRICTS. (See p. 200.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	22	− 1	22	− 2	918	+ 28	28	0
	1. SCOTLAND, EAST -	27	0	28	0	992	− 45	31	− 1
	2. ENGLAND, N.E. - -	19	−10	20	−12	929	− 21	29	− 1
	3. ENGLAND, EAST -	29	− 8	29	−12	1025	− 18	32	− 4
	4. MIDLAND COUNTIES-	27	− 9	28	− 9	993	− 29	31	− 1
	5. ENGLAND, SOUTH -	30	−11	31	−10	1152	+ 47	37	+ 2
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	35	+ 2	36	+ 3	1067	+ 39	33	0
	7. ENGLAND, N.W. - -	20	−14	21	−13	964	− 55	30	− 2
	8. ENGLAND, S.W. - -	34	−10	35	− 9	1213	+ 7	38	0
	9. IRELAND, NORTH -	28	0	28	0	984	+ 42	31	+ 1
	10. IRELAND, SOUTH -	33	− 2	34	− 1	1070	− 17	34	− 1
	— CHANNEL ISLANDS -	39	−14	41	−13	1432	+ 72	47	+ 2

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been extremely rough, wet, and unseasonable in all parts of the Kingdom. Thunder and lightning were experienced from time to time. Rain fell almost daily, but towards the close of the period the conditions were improving considerably.

Temperature has continued below the mean for the time of year, the deficit having ranged from about 1° in the north and east to 3° in the west. The highest of the daily maxima were recorded either on the 26th or 27th, and ranged from 70° in "England S." to 65° in "Scotland W.," "England N.W.," and "Ireland S." The lowest of the minima were generally registered on the last day of the period, when the sheltered thermometer fell to 36° in "Ireland N." and 37° or 38° in Scotland. Elsewhere they ranged from 40° in "England S.W." to 48° in "England S." and to 52° in the "Channel Islands."

Rainfall has been more than the mean in all districts, but especially in the western and southern parts of the Kingdom, where the fall has been more than double the average.

Bright Sunshine has been below the mean in almost all districts. The percentage of the possible amount of duration has ranged from 41 in the "Channel Islands," 36 in "Scotland W.," and 35 in "England S.W.," to 21 in "England N.W." and 20 in "England N.E."

Barometer and Wind.—During nearly the whole of this period depressions have moved north-eastwards over the western and northern parts of our Islands and some secondary systems have passed in a similar direction over England. The depression observed on the 26th was unusually deep for the time of year. Strong winds from between South and West have consequently been very prevalent in almost all districts, and on the 25th and 26th they increased to the force of a gale, especially over the eastern parts of the Channel. At the end of the period, however, the disturbances had passed away, and the gradients had become moderate or slight for North-Westerly or Westerly winds.

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II.—DATA from which the SUMMARY on page 199 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	58	45	55·4	47·3	51·1	− 1·3	64	0	5	1·06	+0·32	*	*	*	*
	Stornoway	61	44	57·0	47·3	52·0	− 1·2	7	0	6	0·80	−0·05	25·3	− 0·9	25	− 2
	Wick	65	44	59·3	47·9	53·3	− 0·3	79	0	4	0·88	+0·30	*	*	*	*
	Lairg ℌ	67	38	61·4	46·6	53·6	+ 0·1	81	0	6	0·93	+0·30	*	*	*	*
	Glencarron ℌ	61	41	56·3	46·0	50·7	− 2·3	61	0	7	2·03	+0·54	*	*	*	*
	Fort Augustus ℌ	66	40	59·9	47·6	53·4	− 1·5	80	0	6	0·87	+0·16	16·5	?	17	?
	Fort William ℌ	62	44	58·7	48·8	53·5	− 1·8	81	0	7	1·86	+0·51	24·1	?	24	?
1. SCOTLAND, E.	Nairn	66	43	61·1	47·7	54·0	− 1·6	84	0	6	0·92	+0·31	*	*	*	*
	Aberdeen	66	44	61·6	49·9	55·4	− 0·1	94	0	3	0·63	−0·05	32·7	− 0·2	33	0
	Braemar ℌ	59	43	56·4	47·0	51·4	− 0·9	66	0	6	1·20	+0·36	20·7†	? †	21†	? †
	Ochtertyre ℌ	67	37	64·0	45·1	54·0	− 1·4	84	0	4	1·27	+0·47	*	*	*	*
	Leith	65	43	62·7	49·3	55·6	− 1·7	95	0	4	0·76	+0·16	*	*	*	*
	Marchmont ℌ	62	39	60·6	47·1	53·5	− 1·4	81	0	6	1·03	+0·23	26·3	?	26	?
2. ENGLAND, N.E.	Alnwick Castle	62	41	59·3	48·7	53·7	− 1·9	82	0	5	0·80	+0·10	*	*	*	*
	Durham	64	43	61·9	49·7	55·4	− 1·3	94	0	6	1·08	+0·47	21·4	−10·0	22	−10
	Shields	64	46	61·9	48·3	54·7	− 2·0	89	0	5	0·91	+0·32	*	*	*	*
	Scarborough ℳ	66	48	60·9	51·9	56·1	− 1·3	99	0	6	1·54	+0·95	*	*	*	*
	York	67	43	62·6	48·4	55·1	− 2·8	92	0	7	1·09	+0·49	19·2	−11·9	20	−11
	Spurn Head	67	50	62·3	52·9	57·3	− 1·4	107	0	7	0·48	+0·05	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	68	46	63·2	51·9	57·2	− 1·4	106	0	6	0·75	+0·16	28·5	− 7·5	29	−11
	Yarmouth	68	48	64·0	52·9	58·1	− 1·4	113	0	5	0·64	+0·16	*	*	*	*
	Geldeston	69	47	65·4	52·9	58·8	− 0·4	118	0	5	0·67	+0·18	30·4	−10·5	31	−12
	Cambridge	69	46	65·4	51·3	57·9	− 1·7	111	0	6	0·74	+0·24	27·0	−10·3	28	−11
	Rothamsted	66	49	63·6	52·0	57·5	− 1·7	109	0	5	1·06	+0·49	28·4	?	29	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	64	41	63·9	49·7	56·4	− 1·3	101	0	4	0·89	+0·38	*	*	*	*
	Loughborough	68	49	64·3	52·3	57·9	− 1·5	111	0	6	1·33	+0·74	*	*	*	*
	Stamford (Ketton Hall)	68	46	63·9	51·3	57·2	− 2·0	106	0	6	1·04	?	*	*	*	*
	Cheadle ℳ	64	46	60·9	48·9	54·5	− 1·7	88	0	6	1·42	+0·60	*	*	*	*
	Churchstoke ℳ	66	43	61·7	48·2	54·6	− 2·0	88	0	7	1·65	+1·03	31·1	− 3·6	32	− 4
	Hereford ℳ	67	44	63·5	50·4	56·6	− 2·5	102	0	6	1·28	+0·69	*	*	*	*
	Cirencester	65	44	62·0	48·4	54·8	− 2·6	90	0	7	2·26	+1·56	21·3	−17·5	22	−16
	Oxford	65	49	63·0	52·3	57·3	− 2·1	107	0	7	1·70	+1·18	27·0	−12·0	28	−12
5. ENGLAND, S.	London	68	50	65·0	53·6	59·0	− 1·3	119	0	5	0·89	+0·40	28·8†	− 6·0†	30†	− 6†
	Strathfield Turgiss ℳ	68	49	65·2	53·0	58·7	− 0·9	117	0	7	0·76	+0·27	*	*	*	*
	Dungeness	70	50	65·4	55·4	60·1	− 0·8	127	0	6	1·15	+0·66	*	*	*	*
	Hastings (St. Leonards)	67	51	64·3	54·7	59·2	− 1·9	120	0	6	1·54	+0·98	34·3	− 8·7	36	− 9
	Southampton	67	50	64·7	53·5	58·8	− 2·1	118	0	7	1·82	+1·22	27·9	−15·9	29	−15
	Hurst Castle	68	51	63·4	55·0	59·0	− 1·9	119	0	7	1·26	+0·72	*	*	*	*
	Stowell ℳ	64	48	61·7	51·8	56·5	− 1·9	102	0	7	1·37	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	64	44	60·2	47·1	53·3	− 2·5	79	0	6	2·00	+0·78	*	*	*	*
	Glasgow	62	42	59·3	48·6	53·8	− 1·6	83	0	4	1·40	+0·53	32·9	+ 5·1	33	+ 5
	Ardrossan	62	44	59·4	50·7	54·8	− 2·4	90	0	5	1·08	+0·26	*	*	*	*
	Glenlee ℌ	62	37	60·5	47·2	53·5	− 1·4	81	0	6	2·19	+1·20	*	*	*	*
	Douglas (Isle of Man)	65	43	60·0	50·0	54·7	− 1·4	89	0	5	2·57	+1·75	37·7	+ 0·7	38	0
7. ENGLAND, N.W.	Newton Reigny															
	Stonyhurst	62	46	59·9	49·4	54·3	− 2·9	86	0	6	2·99	+1·92	13·5	−19·0	14	−19
	Blackpool ℳ	63	48	61·4	53·3	57·1	− 1·1	106	0	4	3·53	+2·76	21·5	−12·4	22	−12
	Manchester	64	47	61·4	50·0	55·4	− 2·1	94	0	6	2·02	+1·23	*	*	*	*
	Liverpool Obsy. (Bidston)	64	49	61·7	52·6	56·9	− 1·6	104	0	7	1·53	+0·88	*	*	*	*
	Llandudno ℳ	65	50	61·6	53·3	57·2	− 2·1	106	0	6	1·30	+0·67	25·2	− 8·9	26	− 7
	Holyhead	61	50	60·1	53·1	56·4	− 2·2	101	0	6	1·78	+1·12	*	*	*	*
8. ENGLAND, S.W.	Llandovery	65	40	63·3	47·6	55·0	− 3·2	91	0	7	3·42	+2·37	*	*	*	*
	Pembroke	60	52	59·3	53·7	56·3	− 2·4	100	0	5	1·83	+1·18	33·8	− 9·2	35	− 9
	Arlington (N. Devon)	62	46	59·9	50·4	54·9	− 2·4	90	0	5	3·14	+2·02	*	*	*	*
	Cullompton ℳ	67	46	63·2	51·7	57·1	− 1·1	106	0	7	1·69	+1·04	28·9	−11·1	30	−10
	Falmouth	67	50	62·7	52·0	57·0	− 2·6	105	0	5	1·82	+0·97	38·4	− 6·6	40	5
	Plymouth															
	Prawle Point	68	46	60·6	52·0	56·0	− 3·2	98	0	6	1·46	+1·02	*	*	*	*
9. IRELAND, N.	Malin Head	61	48	58·7	50·7	54·5	− 2·0	88	0	4	1·51	?	*	*	*	*
	Londonderry	66	45	62·0	48·9	55·1	− 1·6	92	0	6	1·31	+0·44	*	*	*	*
	Mullaghmore	62	45	59·9	50·4	54·9	− 2·7	90	0	6	2·55	+1·73	*	*	*	*
	Belmullet	60	44	58·6	50·4	54·3	− 4·3	86	0	6	1·89	?	*	*	*	*
	Markree Castle	62	36	60·1	45·8	52·5	− 3·2	74	0	6	1·85	+1·05	32·1	+ 5·2	33	+ 6
	Brookeborough	61	40	59·5	46·9	52·8	− 2·6	76	0	7	2·23	+1·46	*	*	*	*
	Armagh	64	44	61·6	48·5	54·7	− 1·7	89	0	5	1·33	+0·65	24·6	− 1·5	25	− 2
	Donaghadee	65	51	61·4	52·9	56·9	+ 0·7	104	0	6	1·44	+0·73	*	*	*	*
	Edgeworthstown	64	39	61·3	46·6	53·5	− 2·6	81	0	7	2·81	+2·06	*	*	*	*
10. IRELAND, S.	Dublin	64	46	60·8	51·4	55·8	− 2·5	97	0	7	0·88	+0·27	32·6	− 2·6	34	− 2
	Parsonstown	63	42	61·0	48·0	54·1	− 3·1	85	0	7	1·85	+1·07	24·0	− 7·6	25	− 8
	Kilkenny	64	41	61·1	48·1	54·2	− 3·5	85	0	7	1·53	+0·72	*	*	*	*
	Waterford	65	44	62·6	49·4	55·6	− 3·0	95	0	6	2·34	+1·47	*	*	*	*
	Roche's Point	65	48	60·9	51·4	55·9	− 3·3	97	0	4	1·40	+0·49	*	*	*	*
	Valencia	62	46	61·1	51·7	56·1	− 2·4	99	0	7	1·90	+0·82	41·7	+ 6·7	43	+ 8
	Killarney	63	46	60·8	49·9	55·0	− 3·0	91	0	5	1·39	?	*	*	*	*
	Foynes	62	47	60·8	50·8	55·5	− 2·0	95	0	7	2·03	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	63	53	61·6	54·6	57·9	− 2·3	111	0	6	0·95	+0·35	*	*	*	*
	Jersey	69	52	65·6	57·0	61·0	− 1·1	133	0	5	2·52	+1·92	38·7	−14·3	41	−13

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

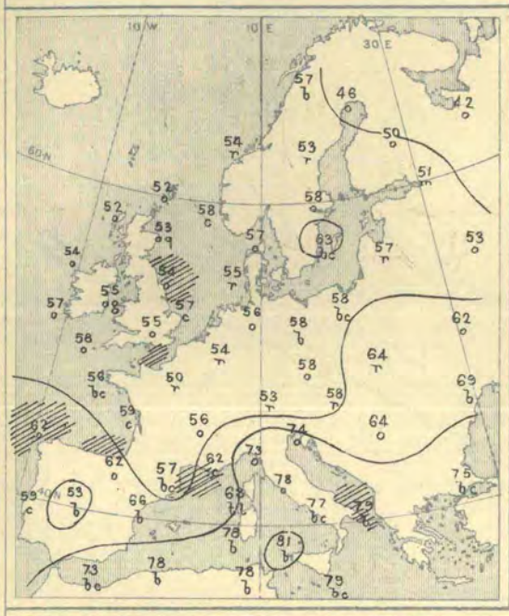
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 23rd August.

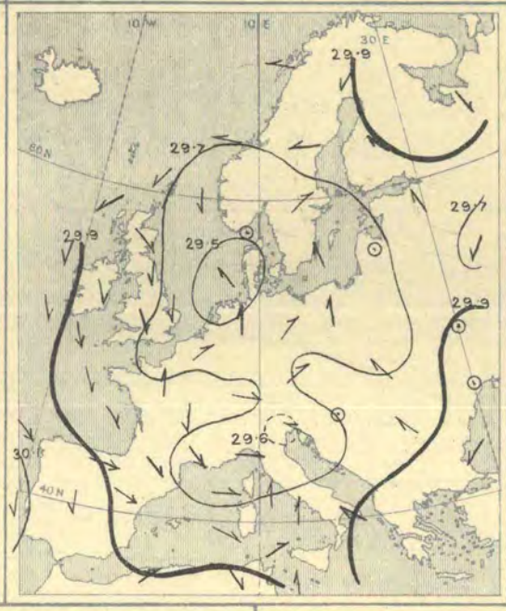
Temperature and Weather.

8 a.m.

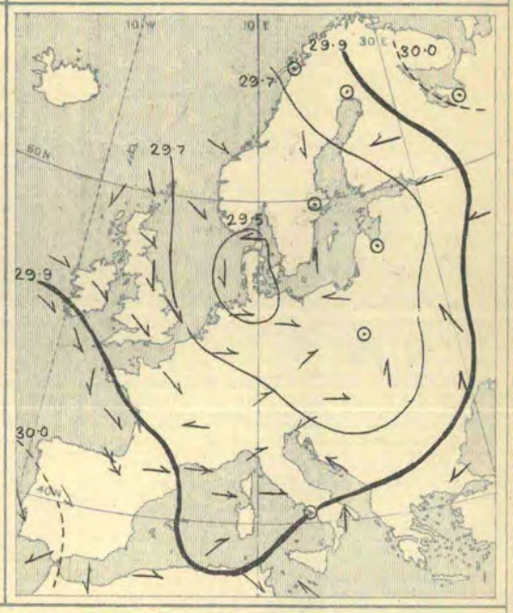


Barometer and Wind.

8 a.m.



6 p.m.



Weather cloudy or overcast over the greater part of Europe, with rain over Belgium, the north of France, eastern Denmark, and northern Austria. Fine in Spain, Algeria, and the southern parts of Italy, Austria, and Russia, as well as at some of the German stations. Showers falling during day in many parts of western Europe, and thunderstorms occurring in the extreme south of England, as well as in Germany. Thunderstorm, with heavy rain, passing over Rome in evening.

Temperature highest, 81° at Palermo, 79° at Brindisi, and 78° at Pesaro, Rome, Cagliari, Algiers, and La Calle; above 70° in most parts of Italy and Algeria, but much lower in Spain and the south of France, and as low as 53° at Madrid. Lowest, 42° at Archangel, 46° at Haparanda, 47° at Uleaborg, and 50° at Kuopio; below 55° over the whole of northern Europe, as well as in many parts of the United Kingdom. Daily maxima below 60° at all our more northern stations, and very little above 65° even in the extreme south. Exceeding 70° in some parts of France and rising to between 80° and 90° at most of the Italian and Algerian stations.

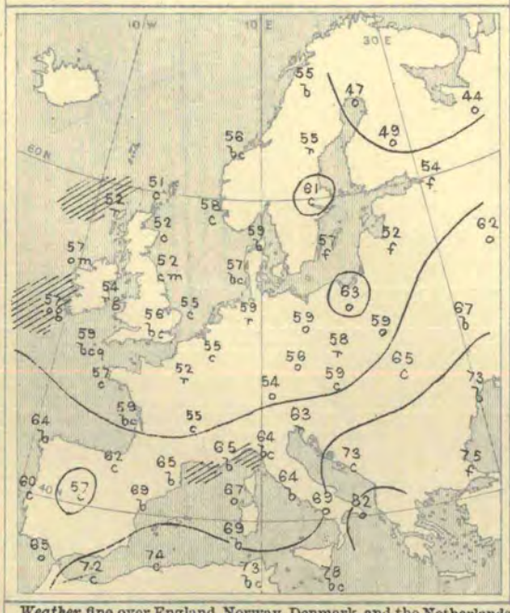
Wind light or moderate from the North or North-West over our Islands, the south of Norway, and the north of France. Light from the South-East over Finland and the Baltic, and from the East over the northern parts of Scandinavia. Moderate from the South in Italy, and also over north Germany; Northerly in Spain, light and variable over Algeria and the south of Russia. Subsequently backing to the Westward in the west of Ireland; no important change occurring elsewhere.

Barometer highest, 30·1 ins. and upwards in Portugal; 29·9 ins. and upwards over northern Russia. Lowest, 29·4 ins. and less in a depression lying over the North Sea to the west of Holstein; 29·6 ins. and less in another disturbance lying over the extreme north of the Adriatic. Former depression subsequently moving slowly eastwards, but new disturbance beginning to approach our extreme western coasts. Small shallow system also appearing over the Gulf of Genoa.

Monday, 24th August.

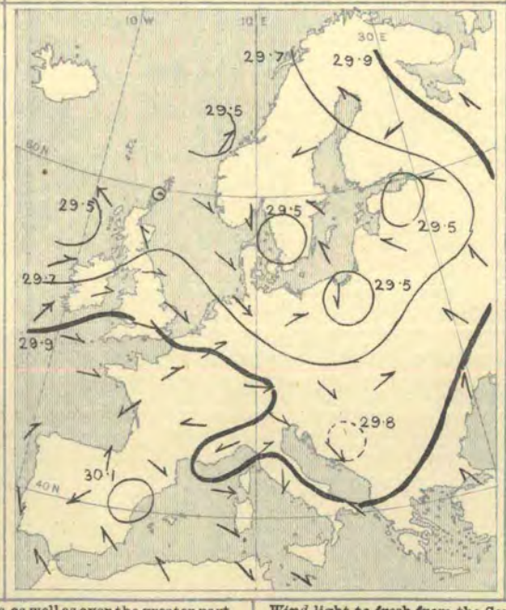
Temperature and Weather.

8 a.m.

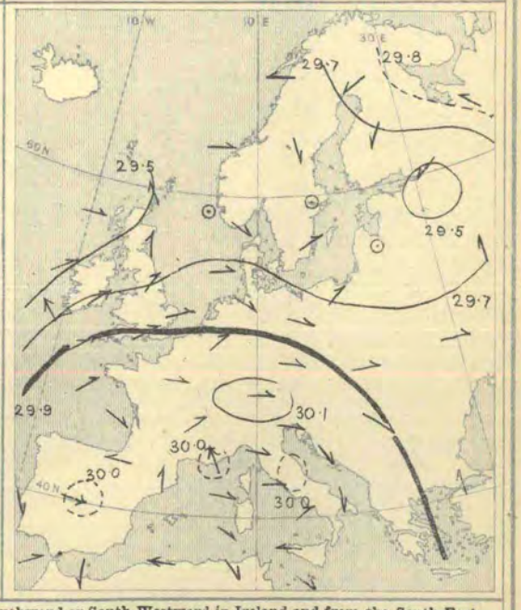


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine over England, Norway, Denmark, and the Netherlands, as well as over the greater part of southern and eastern Europe. Dull elsewhere, with passing showers in the west and north of our Islands; steady rain at some of the Swedish and German stations, and fog at Wisby, Riga, and St. Petersburg. Heavy rain falling later in the western parts of the United Kingdom, and smaller amounts in all other districts; lightning seen in London in evening. Rain also setting in at some of the Russian stations.

Temperature highest, 82° at Brindisi, 81° at Sfax, 78° at Malta, and 75° at Constantinople; above 70° at most of the Algerian stations, and also in the extreme south of Russia, but below that point over the greater part of Spain and Italy, and as low as 57° at Madrid. Lowest, 44° at Archangel, 47° at Haparanda, 48° at Uleaborg, and 49° at Kuopio; below 55° in many parts of the United Kingdom. Daily maxima below 65° at most of our own stations, and below 60° in some of the western and northern districts, but thermometer exceeding 70° in France, and exceeding 80° in most parts of southern and eastern Europe, the highest reading of all being 88° at Brindisi.

Wind light to fresh from the Southward or South-Westward in Ireland and from the South-Eastward in Scotland; moderate from the Westward over Germany, the Netherlands, the south of England, and the north of France—North-Westerly in Denmark and the south of Norway, Easterly over Sweden, northern Russia, and the Baltic; South-Easterly or Southerly over the central and southern parts of Russia. Variable over Algeria and the greater part of southern Europe. Subsequently backing to the South-Westward in the south of England and to the South-Eastward at Valencia Island, and increasing to a fresh or strong breeze.

Barometer highest, 30·1 ins. and upwards in an anticyclone lying over Algeria, Spain, France, the Bay of Biscay, and the western parts of the Mediterranean, and also in another system lying over the north of Russia. Lowest, 29·5 ins. and less in four depressions—one lying off the west of Scotland, another off the west of Norway, a third over the south of Sweden, and a fourth (a large shallow system) over Poland, Prussia, and the Baltic Provinces. Depression off the west of Scotland subsequently moving northwards, but new disturbance beginning to approach our western coasts.

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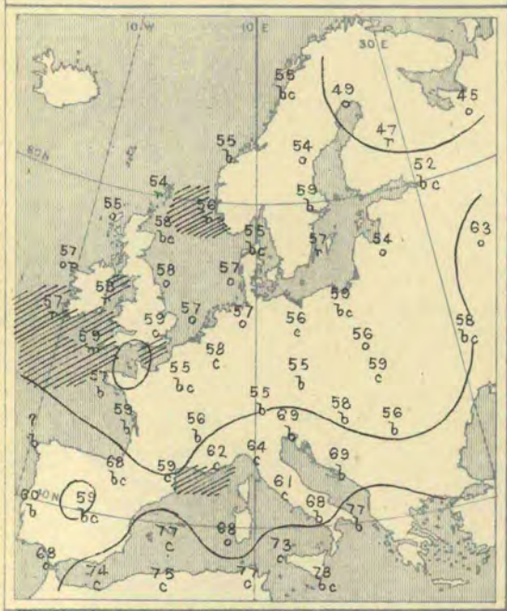
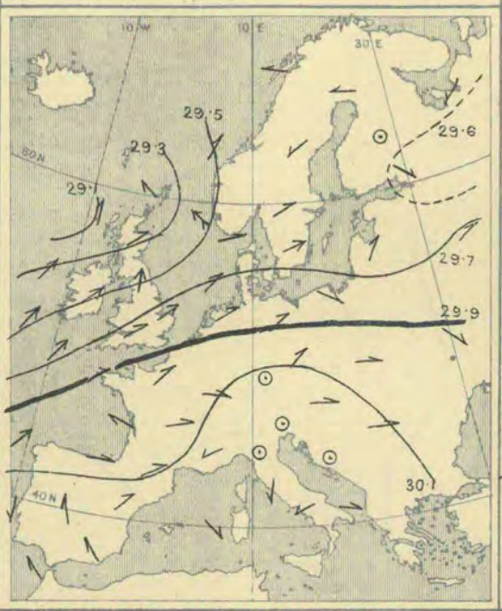
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 25th August.

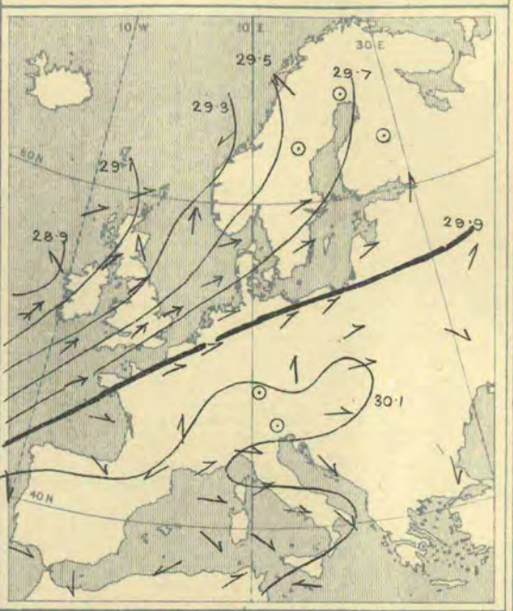
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather cloudy over the greater part of our Islands, with heavy rain at some of our western stations, and showers in many other places; dull and rainy also in Finland and some parts of Sweden. Fine and bright in all the more central and southern countries, as well as at most of the Norwegian stations. Large quantities of rain falling later in the west and north of our Islands generally, the heaviest of all being 1·0 in. at Valencia, Roche's Point, and Pembroke, and 0·9 in. at Malin Head.

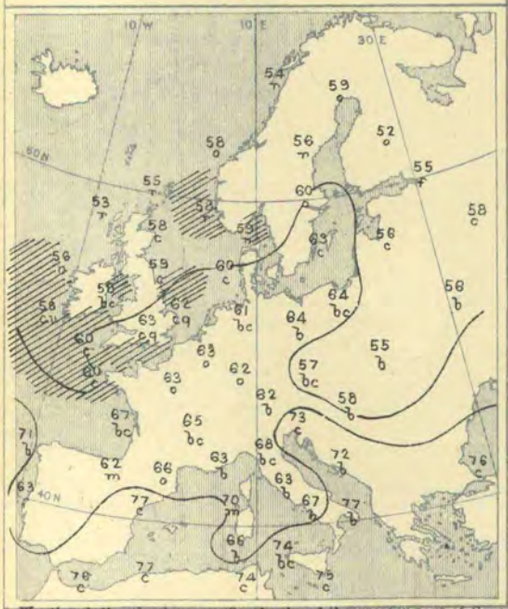
Temperature highest, 79° at Sfax, 78° at Malta, and 77° at Brindisi, Palma, and Tunis; above 70° over the central and southern parts of the Mediterranean generally. Lowest, 45° at Archangel, 47° at Kuopio, 49° at Haparanda, 52° at St. Petersburg, and 53° at Helsingfors; below 55° in the extreme north of Scotland, and also in some parts of western Germany, but reaching 60° on the south coast of England. Daily maxima over our Islands mostly below 65°, and below 60° at some of our western stations. Thermometer rising to between 70° and 80° in France, and exceeding 80° at many of the Italian and Algerian stations, the highest European reading of all being 86° at Brindisi.

Wind fresh or strong from the South-West over Ireland, England, and the south of Scotland, and light or moderate from the same quarter over Denmark, Germany, and the Baltic. Light from the South-East in the extreme north of Scotland, and from the East in the northern parts of Russia and Scandinavia; variable in Italy, Easterly in Spain and Algeria. Subsequently increasing to a fresh or strong gale from the South-Westward over nearly the whole of Ireland and England, and to a moderate gale from the Southward in the south of Norway.

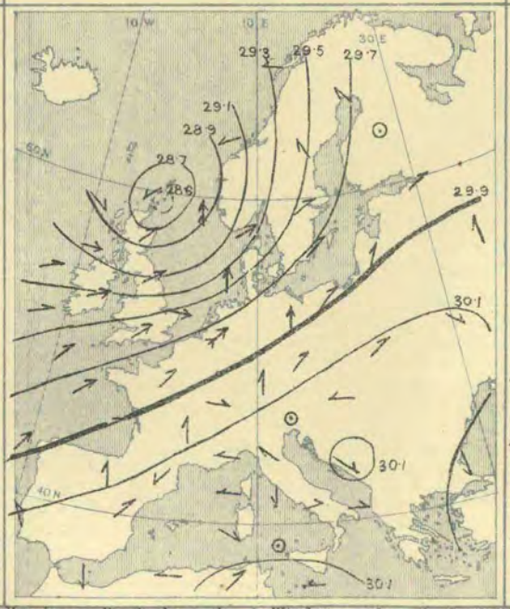
Barometer highest, 30·1 ins. and upwards in a large anticyclone covering the greater part of Europe and the Mediterranean. Lowest, 29·1 ins. and less in a rather deep depression lying off the west of Scotland; 29·6 ins. and less in a large shallow area over the north of Russia. Depression off the Scotch coasts subsequently travelling away to the northward, but new and far deeper disturbance approaching our western coasts from the Atlantic, and barometer falling rapidly in Ireland. Shallow system over Russia filling up gradually.

Wednesday, 26th August.

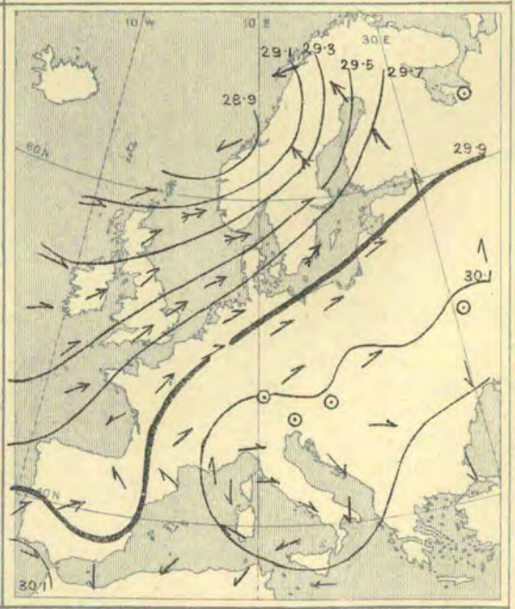
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather dull and rainy over Scotland and the greater part of Scandinavia, as well as in the north-west of France; showery at some of the English and Irish stations, but fair on the whole. Fine and bright in nearly all parts of southern and eastern Europe. Considerable improvement taking place later over the north of our Islands, but steady rain setting in over the south of England. Large amounts falling during day in the north-west of France, as well as at some of the Spanish stations.

Temperature highest, 77° at Barcelona, Brindisi, and Algiers, 76° at Nemours and Constantinople, and 75° at Malta; above 70° at most of the Austrian and Mediterranean stations, above 60° over France, Germany, the Netherlands, and the south-east of England. Lowest, 50° at Uleaborg, 52° at Kuopio, and 53° at Warsaw, Cracow, and Wiek; a little below 55° at several of our own northern stations. Subsequently rising to between 65° and 69° in most parts of England, to 75° or more in Germany, and to 80° or more at several of the French stations, as well as over the greater part of southern Europe. Thermometer reaching 95° at Biarritz.

Wind strong from the South-Westward over the greater part of our Islands (with a gale in the east and south-east of England), as well as over Denmark, the Netherlands, and the north of France, but light from between North-East and North-West in the extreme north of Scotland. Light or moderate from the Southward over Sweden, the Baltic, Germany, and the central parts of France; strong to a gale from the same quarter in the south of Norway. Light and variable over Italy, Algeria, and the Mediterranean. Wind subsiding later in most parts of the United Kingdom, but increasing from between South-West and South-East in Scandinavia.

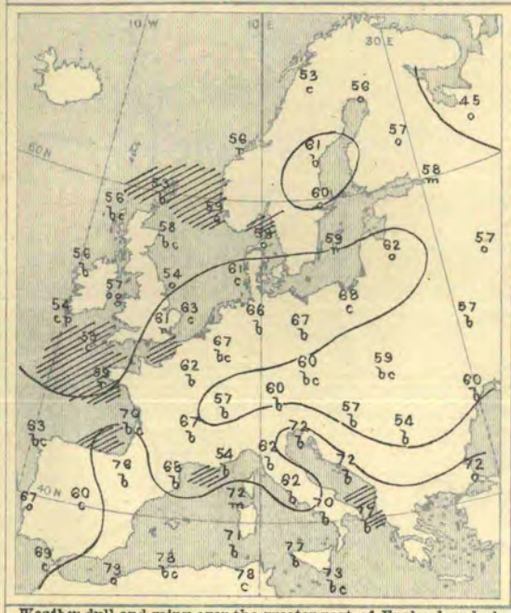
Barometer highest, 30·1 ins. and upwards in a large anticyclone covering the Mediterranean and the greater part of southern and eastern Europe. Lowest, 28·6 ins. and less in a deep depression, the centre of which lay a little to the southward of the Shetlands. Gradients steep over the whole of north-western Europe, especially over the North Sea and the north of England. Depression subsequently travelling away quickly in a north-easterly direction, but secondary disturbances beginning to appear over our south-west coasts and the Bay of Biscay.

Judd & Cº Ltd Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 27th August.

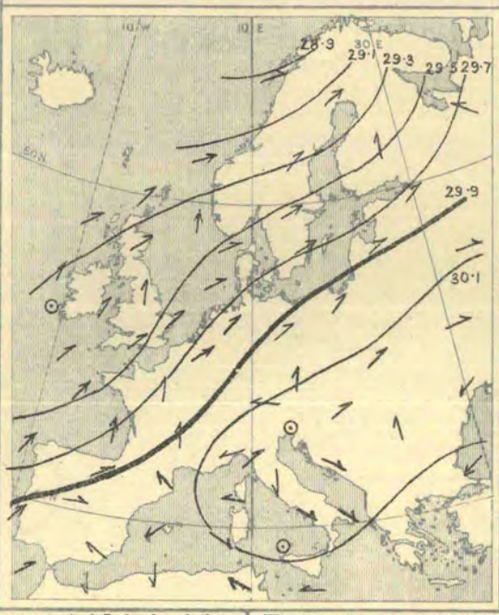
Temperature and Weather. — 8 a.m.



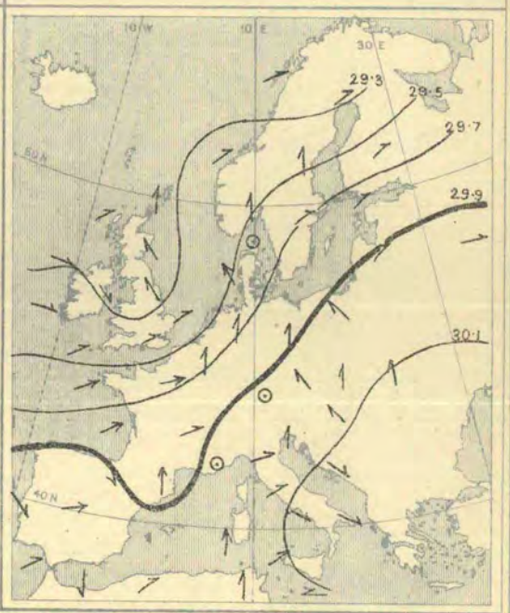
Weather dull and rainy over the greater part of England, and also over central Ireland and the north-west of France; dull also over northern and central Russia, and rainy at Christiansund and Wisby. Fine in almost all other parts of Europe. Rain falling during day over nearly the whole of our Islands and France, the largest amounts being 1·0 in. at La Hague, 0·9 in. at Cherbourg, 0·8 in. at Oxford, and 0·7 in. in London. Thunderstorm occurring at Scilly at night.

Temperature highest, 78° at Palma, Algiers, and La Calle, and 77° at Barcelona, Brindisi, and Palermo; above 70° at most of the Mediterranean and Adriatic stations, above 65° over Belgium and north Germany. Lowest, (1) 45° at Archangel; (2) 50° at Parsonstown, 52° at Mullaghmore, and 53° at Bodö, Sumburgh Head, Malin Head, and Donaghadee; below 55° at several of our own western and northern stations. Daily maxima below 65° over a considerable portion of the United Kingdon, and below 60° at several of our western stations, but thermometer reaching 66° at Nairn and 70° at Dungeness. Exceeding 80° over southern Europe generally, the highest readings of all being 88° at Gap and 86° at Bordeaux, Biarritz, Perpignan, and Rome.

Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.

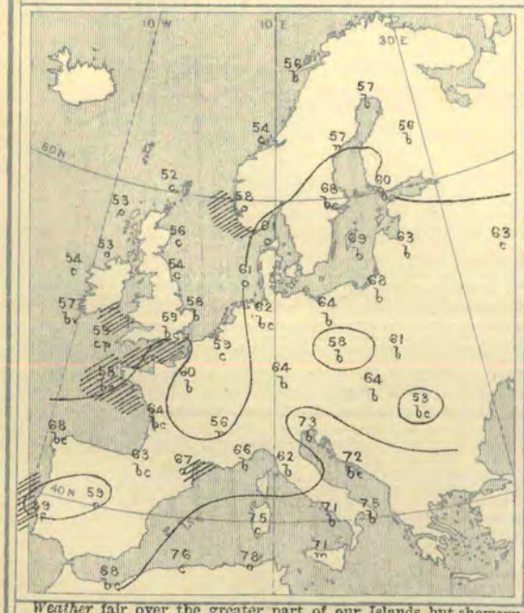


Wind Southerly over England, France, and the Netherlands; fresh or strong in force at the Channel stations. Light or moderate from the South-Westward in Scotland, Denmark, and Germany; strong from the same quarter over Scandinavia, and also in the western parts of the Iberian Peninsula. Light and variable in Austria; North-Westerly in Italy; Northerly in Algeria. Subsequently veering to the South-Westward or Westward over England and Ireland, and increasing to a gale over the eastern parts of the Channel.

Barometer highest, 30·1 ins. to 30·2 ins. over Italy, Austria, and the southern parts of Russia, as well as in another system lying off the south of Spain. Lowest, 28·9 ins. and less in a depression lying to the northward of Bodö; 29·3 ins. and less in a small shallow disturbance over the St. George's Channel. Latter system moving north-eastwards during day, but barometer remaining very unsteady on our western coasts.

Friday, 28th August.

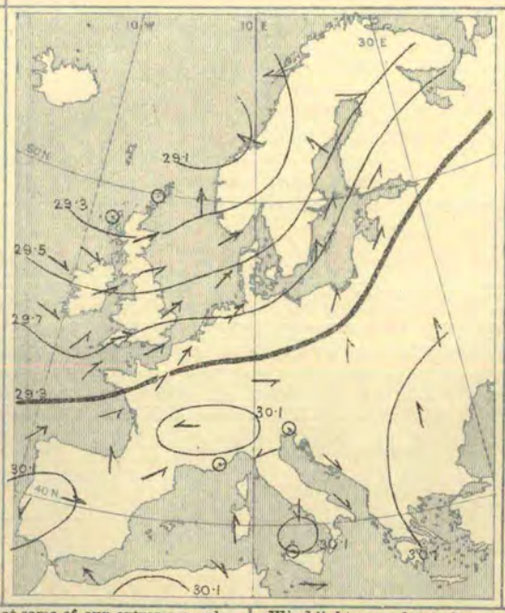
Temperature and Weather. — 8 a.m.



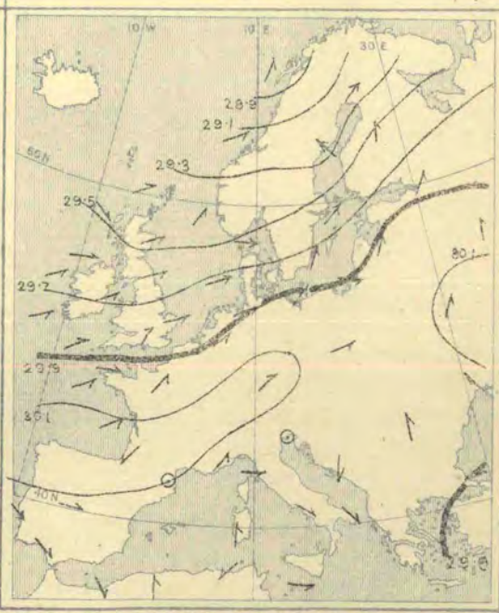
Weather fair over the greater part of our Islands, but showery at some of our extreme north-western and south-eastern stations; fine and bright over nearly the whole of central, southern, and eastern Europe, and also in Russia and Algeria. Dull in Denmark and the south of Norway; rainy at Hernösand and Christiansund. Showers falling during day in many parts of western Europe and heavy rain at Mullaghmore and Jersey; thunder and lightning occurring at some of the English and French stations.

Temperature highest, 78° at La Calle, 77° at Barcelona, and 76° at Algiers and Malta; above 70° at most of the Adriatic and Mediterranean stations, and above 65° in north Germany and the Baltic. Lowest, 52° at Sumburgh Head and Parsonstown, 53° at Stornoway, Wick, York, Malin Head, Mullaghmore, and Donaghadee, and 54° at several of our other northern stations, as well as at Christiansund. Daily maxima below 60° in the extreme north and north-west of our Islands, but thermometer rising to between 65° and 68° over England, and exceeding 70° in France and Germany. Daily maxima above 80° in most parts of southern Europe, and as high as 91° at Cagliari (Sardinia).

Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Wind light or moderate from the Westward in Ireland and the west and north of Scotland, South-Westerly over England, France, the Netherlands, western Germany, and the south of Scandinavia; strong in force in many places, with a gale at Hurst Castle. Light from the Southward over Poland and the Baltic Provinces; Easterly over the northern parts of Scandinavia. Variable over southern Europe, Algeria, and the Mediterranean. Subsequently veering to the Westward in many parts of England, and shifting to the South-Westward in the north of Scandinavia.

Barometer highest, 30·1 ins. and upwards in three areas, situated respectively over the south-western parts of the Spanish Peninsula, over Switzerland and the neighbouring parts of France and Italy, and over eastern Austria; 30·0 ins. and upwards over the whole of southern and eastern Europe. Lowest, 29·1 ins. and less in a depression lying off the west of Norway. Anticyclone over Spain subsequently moving north-eastwards and becoming united with Swiss high-pressure system. Depression off west of Norway moving north-eastwards.

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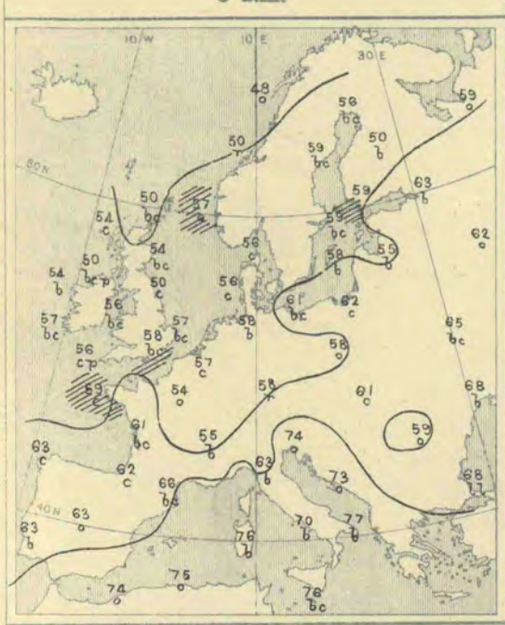
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 29th August.

Temperature and Weather.

8 a.m.

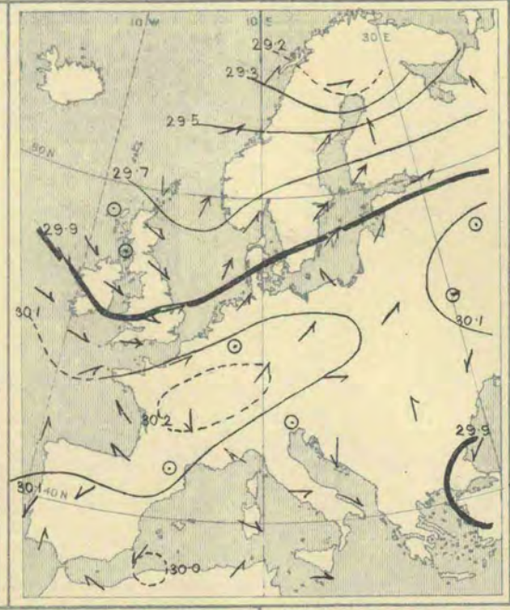


Weather fine over the greater part of Europe, but showery at some of our own southern stations. Dull in Algeria, and also in the west of Norway, with rain at Christiansund. Showers falling during day in several parts of the United Kingdom, with thunder at some of the English stations. Severe thunderstorm occurring at Constantinople, with excessively heavy rain (0·7 ins.).

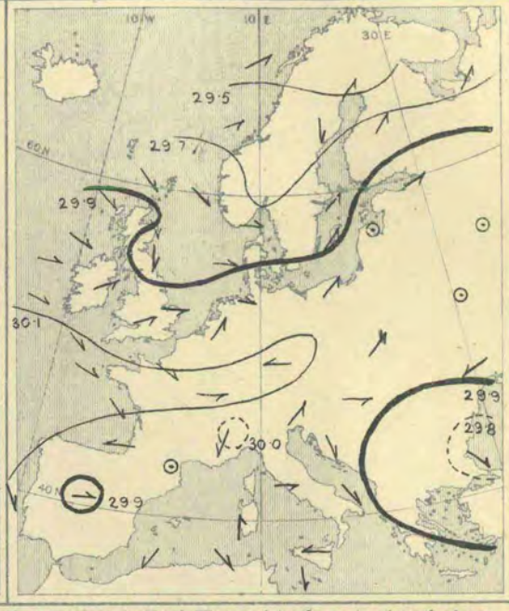
Temperature highest, 84° at Aumale, 82° at Sfax, 77° at Brindisi, and 76° at Cagliari, La Calle, and Malta; above 70° at most of the Adriatic and Mediterranean stations. Lowest, 48° at Bodö, 49° at Wick, and 50° at Christiansund, Sumburgh Head, Nairn, Shields, and Malin Head; below 55° in all the more northern parts of the United Kingdom. Daily maxima below 60° on our extreme north and north-west coasts, and below 65° in most other parts of our Islands, but thermometer rising to between 70° and 80° in France, and exceeding 80° in Italy, Algeria, and central Spain. Highest European readings, 91° at Madrid and 88° at Florence and Palermo.

Barometer and Wind.

8 a.m.



6 p.m.



Wind light to moderate from the Westward or North-Westward in the west and north of our Islands; South-Westerly over Scandinavia, Denmark, Germany, the Netherlands, the east of England, and the north of France; light or moderate in force generally, but strong over the Gulf of Finland and the south of Scandinavia. Light from the Eastward in France, and moderate from the North-Eastward in Spain and Algeria. Light from West or North-West in Italy, variable in Austria and the south of Russia. Subsequently veering to the Westward in the east of England; moderating from the South-Westward in the south of Scandinavia.

Barometer highest, 30·10 ins. to 30·25 ins. and upwards in an anticyclone lying over France, Switzerland, the southern parts of Germany, and the north of Spain; and also in another system lying over the southern half of Russia. Lowest, 29·2 ins. and less in a depression lying over Lapland; shallow "V"-shaped secondary disturbances passing across our Islands and the North Sea. Depression subsequently travelling away to the northward; secondary systems moving eastwards and barometer rising in all parts of the United Kingdom.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇛⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

At the commencement of the week barometrical pressure was highest in an anticyclone lying off the Portuguese coasts, and relatively high in another system lying over the extreme north of Russia. A large area of low pressure covered all the more central parts of the Continent, the lowest readings of all being found in a depression which had advanced from the south of our Islands to Denmark, and which subsequently travelled away to the Baltic. In the western countries the wind was North-Westerly, but in the extreme north it was Easterly, while in the more central districts it was rather variable.

After the 24th the northern high-pressure system gave way, while that in the south-west increased in size and spread eastwards over all the more southern and eastern parts of Europe. A series of large cyclonic disturbances now skirted the north-western and northern coasts of our Islands on their way from the Atlantic to Scandinavia, and for the remainder of the time South-Westerly or Westerly winds and unsettled rainy weather were experienced in all the north-western and northern countries, while variable breezes and fine weather prevailed in the south and east. The depression which travelled across the west and north of Scotland between the 25th and 26th was unusually deep for the time of year, and occasioned gales from the South-Westward in almost all parts of north-western Europe.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 200.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	29·3	?	30	?	EASTBOURNE	27·6	?	29	?
OSWALDKIRK (Yorkshire)	16·2	?	17	?	TORQUAY	32·9*	?	34*	?
WORKSOP	27·5	−3·5	28	−4	ARLEY COTTAGE (County Cavan)	26·3	?	27	?
THURCASTON (Leicestershire)	28·0	−4·9	29	−5	GUERNSEY	37·0*	?	38*	?

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

Judd & Cº Ltd Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
By whom Subscriptions, payable in advance, can be received.
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VOL. VIII. No. 35.] *Third Series.* WEEK ENDING SATURDAY, 5TH SEPTEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 206.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH -	65	30	58·8	46·2	52·2	1 below.	71	− 3	0	0	1526	+162	621	+ 79
1. SCOTLAND, EAST -	66	33	60·7	45·7	52·8	2 below.	76	−14	0	0	1715	− 57	670	+101
2. ENGLAND, N.E. - -	66	40	62·3	48·0	54·8	2 below.	90	− 8	0	0	1749	−130	593	+ 95
3. ENGLAND, EAST -	69	39	65·5	48·6	56·6	2 below.	102	− 8	0	0	2042	−145	689	+128
4. MIDLAND COUNTIES	68	33	64·0	46·6	54·9	3 below.	90	−20	0	0	2029	−135	668	+116
5. ENGLAND, SOUTH -	68	40	64·0	50·6	57·0	3 below.	105	−14	0	0	2203	−154	565	+149
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST -	64	34	60·1	47·6	53·6	2 below.	81	− 9	0	0	1883	+ 73	463	+ 46
7. ENGLAND, N.W. -	67	39	62·0	49·8	55·6	1 below.	95	− 7	0	0	1946*	− 14	449	+ 35
8. ENGLAND, S.W. -	67	35	61·6	49·7	55·4	3 below.	94	−15	0	0	2052	−125	434	+118
9. IRELAND, NORTH -	68	39	60·1	48·6	54·1	2 below.	85	−10	0	0	1964	+ 25	391	+ 29
10. IRELAND, SOUTH -	67	38	60·9	49·1	54·7	3 below.	89	−13	0	0	2181	− 10	309	+ 31
— CHANNEL ISLANDS -	66	47	63·7	54·4	58·8	2 below.	118	− 9	0	0	2360	− 43	162	+ 40

Rainfall.

DISTRICTS. (See p. 206.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH -	6	24	14 more.	158	− 1	32·2	+ 2·6
1. SCOTLAND, EAST -	6	11	4 more.	116	−15	17·3	− 3·1
2. ENGLAND, N.E. - -	4	5	1 less.	115	− 5	15·0	− 1·7
3. ENGLAND, EAST -	3	3	2 less.	123	+ 5	16·3	− 0·1
4. MIDLAND COUNTIES-	4	5	1 less.	119	+ 3	17·5	− 1·0
5. ENGLAND, SOUTH -	4	6	0 (average)	113	+ 1	18·2	+ 1·0
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST -	7	31	21 more.	124	−15	24·0	− 6·6
7. ENGLAND, N.W. - -	5	12	4 more.	113	−13	20·3*	− 0·9
8. ENGLAND, S.W. - -	5	10	2 more.	120	− 9	23·7	− 0·9
9. IRELAND, NORTH -	6	18	10 more.	140	−10	20·6	− 2·4
10. IRELAND, SOUTH -	6	12	4 more.	128	− 8	22·2	− 2·8
— CHANNEL ISLANDS -	5	6	1 less.	121	−16	19·3	− 0·2

Bright Sunshine.

DISTRICTS. (See p. 206.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH -	20	− 4	21	− 4	938	+ 23	28	+ 1
1. SCOTLAND, EAST -	31	− 3	32	− 3	1023	− 44	31	− 1
2. ENGLAND, N.E. - -	36	+ 7	38	+ 6	965	− 8	29	− 1
3. ENGLAND, EAST -	38	0	41	0	1063	−114	33	− 3
4. MIDLAND COUNTIES-	36	+ 2	38	+ 3	1029	− 22	32	− 1
5. ENGLAND, SOUTH -	29	−10	31	− 8	1181	+ 42	36	+ 1
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST -	27	− 4	28	− 4	1094	+ 41	33	+ 1
7. ENGLAND, N.W. - -	28	− 4	30	− 3	991*	− 51	30	− 2
8. ENGLAND, S.W. - -	38	− 4	41	− 3	1251	+ 10	39	+ 1
9. IRELAND, NORTH -	23	− 5	25	− 4	1007	+ 44	31	+ 1
10. IRELAND, SOUTH -	29	− 5	31	− 4	1099	− 15	34	0
— CHANNEL ISLANDS -	31	−19	34	−18	1513	+ 64	47	+ 2

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has continued in a very unsettled and rainy condition generally; over the more southern and eastern parts of England, however, the rain has been less heavy, and during the latter part of the time some fine, bright days were experienced. Thunderstorms occurred at times over Scotland and the northern counties of England.

Temperature has again been below the mean, the deficit in most districts varying between 2° and 3°. The highest of the maxima, which were recorded on rather irregular dates, ranged from 69° in "England E." to 64° in "Scotland W." The lowest of the minima were registered on the first day of the period, when the sheltered thermometer fell to a very low level for the time of year. In "Scotland N." 30° was recorded, in "Scotland E." and the "Midland Counties" 33°, and in "Scotland W." 34°. Elsewhere the minima varied from 35° in "England S.W.," to 40° in "England N.E." and "England S.," and to 47° in the "Channel Islands."

Rainfall has been rather less than the mean over eastern and central England and in the "Channel Islands." In all other districts there has again been an excess. In many of the western and northern districts the fall has been more than double the average, and in "Scotland W." it has amounted to no less than three times the average.

Bright Sunshine has exceeded the mean in "England N.E." and the "Midland Counties," and just equalled it in "England E." In all other districts, however, there has been a deficit. The percentage of the possible amount of duration ranged from 41 in "England E." and "S.W.," to 25 in "Ireland N.," and 21 in "Scotland N."

Barometer and Wind.—During this period depressions have continued to pass north-eastwards over the more northern parts of the Kingdom, and the winds over our Islands have consequently varied between South and West. The disturbance which passed across Scotland on September 1st was of great depth for the time of year and produced very strong winds or gales in all districts.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 205 has been calculated.

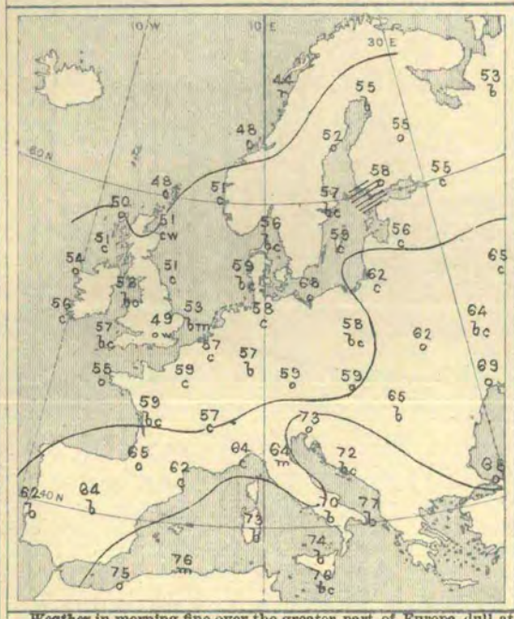
Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	58	47	56·6	48·6	52·4	+ 0·6	73	0	5	1·66	+0·91	*	*	*	*
	Stornoway	60	35	57·7	46·3	52·0	− 0·6	70	0	7	1·05	+0·17	22·1	− 3·7	23	− 4
	Wick	63	35	59·9	45·9	52·6	− 0·4	74	0	5	1·33	+0·75	*	*	*	*
	Lairg ℌ	65	30	60·2	41·4	50·4	− 2·4	61	2	7	1·28	+0·63	*	*	*	*
	Glencarron ℌ	62	35	58·5	45·9	51·9	− 0·6	69	0	6	4·24	+2·73	*	*	*	*
	Fort Augustus ℌ	64	37	60·8	46·6	53·3	− 0·9	79	0	7	2·94	+2·16	23·6	?	25	?
	Fort William ℌ	61	37	58·2	48·2	52·9	− 1·8	76	0	7	4·10	+2·69	14·7	?	15	?
1. SCOTLAND, E.	Nairn	66	33	62·7	44·9	53·4	− 1·3	80	0	6	0·50	−0·10	*	*	*	*
	Aberdeen	64	38	59·9	46·3	52·8	− 2·0	76	0	5	0·63	−0·05	27·5	− 3·5	29	− 4
	Braemar ℌ	59	37	56·5	43·6	49·7	− 1·9	54	0	6	1·13	+0·31	26·2†	? †	27†	? †
	Ochtertyre ℌ	65	41	61·6	45·6	53·2	− 1·5	78	0	7	2·15	+1·32	*	*	*	*
	Leith	65	43	63·1	48·6	55·5	− 1·0	95	0	5	0·70	+0·11	*	*	*	*
	Marchmont ℌ	64	39	60·6	45·1	52·4	− 1·8	73	0	7	1·47	+0·67	35·5	?	37	?
2. ENGLAND, N.E.	Alnwick Castle	62	45	59·4	49·0	54·0	− 0·7	84	0	4	0·89	+0·19	*	*	*	*
	Durham	66	41	62·5	47·0	54·4	− 1·3	87	0	3	0·35	−0·24	34·7	+ 5·7	37	+ 7
	Shields	64	45	61·9	47·0	54·1	− 1·7	85	0	3	0·37	−0·18	*	*	*	*
	Scarborough ℳ	64	45	61·7	50·0	55·6	− 1·0	95	0	3	0·53	−0·09	*	*	*	*
	York	66	40	64·1	44·6	53·9	− 3·2	83	0	5	0·51	−0·11	34·4	+ 5·4	36	+ 6
	Spurn Head	66	48	63·9	50·4	56·8	− 1·2	104	0	3	0·26	−0·19	*	*	*	*
3. ENGLAND, E.	Hillington ℳ												38·6	+ 5·4	41	+ 3
	Yarmouth	67	45	64·4	50·6	57·2	− 1·5	106	0	2	0·26	−0·26	*	*	*	*
	Geldeston	68	41	65·9	48·6	56·8	− 1·8	104	0	2	0·29	−0·27	40·1	+ 1·3	43	+ 1
	Cambridge	69	40	67·1	47·4	56·8	− 2·0	104	0	4	0·34	−0·17	33·6	− 1·6	36	− 2
	Rothamsted	66	39	64·4	47·8	55·7	− 2·0	96	0	3	0·39	−0·20	39·4	?	42	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	68	40	65·9	48·3	56·7	− 0·7	103	0	2	0·30	−0·22	*	*	*	*
	Loughborough	68	39	65·7	46·1	55·4	− 3·2	94	0	3	0·41	−0·19	*	*	*	*
	Stamford (Ketton Hall)	67	38	66·0	45·8	55·4	− 2·7	94	0	2	0·23	?	*	*	*	*
	Cheadle ℳ	63	42	61·3	46·4	53·5	− 2·0	81	0	4	0·83	+0·02	*	*	*	*
	Churchstoke ℳ	65	33	62·6	44·7	53·2	− 2·6	78	0	5	0·57	−0·06	37·4	+ 4·9	40	+ 5
	Hereford ℳ	67	39	65·2	47·4	55·9	− 2·1	97	0	4	0·28	−0·32	*	*	*	*
	Cirencester	64	37	61·9	45·6	53·4	− 3·2	80	0	5	0·67	−0·05	28·5	− 6·5	31	− 5
	Oxford	65	43	63·1	48·4	55·4	− 3·1	94	0	5	0·71	+0·14	35·6	− 0·7	38	− 1
5. ENGLAND, S.	London	67	43	66·1	49·6	57·5	− 2·3	109	0	2	0·26	−0·24	28·1 †	− 3·7†	30†	− 4†
	Strathfield Turgiss ℳ	68	40	65·5	48·1	56·4	− 2·4	101	0	6	0·53	0·00	*	*	*	*
	Dungeness	66	44	64·0	51·9	57·7	− 2·3	110	0	5	0·66	+0·14	*	*	*	*
	Hastings (St. Leonards)	64	47	62·3	52·0	56·9	− 3·3	104	0	6	0·76	+0·18	28·4	−12·6	31	−13
	Southampton	67	44	64·6	51·0	57·5	− 2·5	109	0	4	0·77	+0·13	31·7	− 9·3	34	− 9
	Hurst Castle	65	48	63·3	54·0	58·4	− 1·7	115	0	3	0·70	+0·06	*	*	*	*
	Stowell ℳ	64	40	62·1	47·8	54·6	− 3·0	88	0	4	0·43	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	64	41	60·2	47·2	53·4	− 1·7	80	0	7	5·04	+3·70	*	*	*	*
	Glasgow	62	47	59·9	49·2	54·3	− 0·4	86	0	7	1·73	+0·83	22·9	− 3·1	24	− 3
	Ardrossan	62	43	60·4	50·9	55·4	− 0·8	94	0	7	2·21	+1·41	*	*	*	*
	Glenlee ℌ	63	34	60·6	43·7	51·7	− 2·6	68	0	7	3·62	+2·58	*	*	*	*
	Douglas (Isle of Man)	62	39	59·6	47·2	53·1	− 2·3	78	0	6	2·93	+2·08	30·5	− 4·8	32	− 5
7. ENGLAND, N.W.	Newton Reigny	64	39	60·9	45·5	52·8	− 1·0	76	0	4	2·05	+1·30	11·4	−19·2	12	−19
	Stonyhurst	67	45	61·7	49·8	55·5	− 0·9	95	0	7	1·45	+0·37	31·0	− 0·2	33	0
	Blackpool ℳ	65	46	62·8	51·4	56·7	− 0·5	103	0	5	0·75	−0·09	33·6	+ 1·6	36	+ 3
	Manchester	65	42	62·4	48·4	55·1	− 1·7	92	0	5	0·80	−0·04	*	*	*	*
	Liverpool Obsy. (Bidston)	65	47	62·4	51·0	56·4	− 1·4	101	0	6	1·28	+0·59	*	*	*	*
	Llandudno ℳ	66	47	62·9	50·8	56·6	− 2·0	102	0	4	0·64	−0·04	34·9	+ 2·9	37	+ 5
	Holyhead	63	49	61·3	51·7	56·3	− 1·7	100	0	6	1·70	+1·01	*	*	*	*
8. ENGLAND, S.W.	Llandovery	67	35	63·4	45·4	54·2	− 3·2	85	0	6	1·71	+0·63	*	*	*	*
	Pembroke	60	54	59·6	54·9	57·1	− 1·0	106	0	7	0·88	+0·18	38·1	− 1·7	41	− 1
	Arlington (N. Devon)	63	41	61·3	47·7	54·2	− 2·4	85	0	6	1·41	+0·29	*	*	*	*
	Cullompton ℳ	65	39	63·6	47·6	55·2	− 2·3	92	0	5	0·62	−0·08	30·3	− 6·8	33	− 6
	Falmouth	63	47	61·7	50·4	55·8	− 3·0	97	0	5	1·10	+0·15	41·3	− 0·2	44	0
	Plymouth															
	Prawle Point	62	47	60·1	52·1	55·9	− 2·9	97	0	3	0·45	−0·03	*	*	*	*
9. IRELAND, N.	Malin Head	62	46	59·6	49·3	54·2	− 1·5	85	0	6	1·17	?	*	*	*	*
	Londonderry	68	43	62·2	47·7	54·6	− 1·3	88	0	6	1·47	+0·59	*	*	*	*
	Mullaghmore	61	48	59·1	50·7	54·7	− 2·3	89	0	6	1·91	+1·00	*	*	*	*
	Belmullet	60	47	57·7	51·1	54·2	− 3·9	85	0	7	3·23	?	*	*	*	*
	Markree Castle	62	41	59·7	46·5	52·8	− 2·0	76	0	7	1·82	+1·04	20·9	− 4·1	22	− 4
	Brookeborough	63	39	59·8	45·6	52·4	− 2·0	73	0	7	1·82	+1·02	*	*	*	*
	Armagh	62	44	60·1	47·2	53·3	− 2·1	79	0	7	1·15	+0·41	22·4	− 3·0	24	− 4
	Donaghadee	65	50	61·3	53·0	57·0	+ 1·2	105	0	6	0·97	+0·23	*	*	*	*
	Edgeworthstown	63	39	61·3	46·4	53·5	− 1·8	81	0	5	2·23	+1·48	*	*	*	*
10. IRELAND, S.	Dublin	66	46	61·9	49·8	55·6	− 1·9	95	0	7	0·85	+0·25	29·0	− 4·5	31	− 4
	Parsonstown	63	42	60·6	48·0	54·0	− 2·4	84	0	7	1·46	+0·70	25·7	− 4·3	27	− 5
	Kilkenny	66	38	62·0	46·6	53·9	− 3·1	83	0	7	1·30	+0·50	*	*	*	*
	Waterford	65	40	61·9	47·1	54·1	− 3·7	85	0	5	1·03	+0·15	*	*	*	*
	Roche's Point	61	46	59·9	49·9	54·7	− 3·9	89	0	5	0·84	−0·11	*	*	*	*
	Valencia	63	47	60·4	51·7	55·8	− 2·1	97	0	7	1·47	+0·39	31·5	− 1·5	34	0
	Killarney	67	43	61·2	49·4	55·0	− 2·4	91	0	5	1·15	?	*	*	*	*
	Foynes	64	47	59·6	50·3	54·7	− 2·1	89	0	7	1·66	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	65	52	62·7	54·3	58·3	− 1·4	114	0	6	0·56	−0·14	*	*	*	*
	Jersey	66	47	64·7	54·4	59·3	− 2·3	121	0	3	0·61	−0·04	30·9	−19·1	34	−18

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

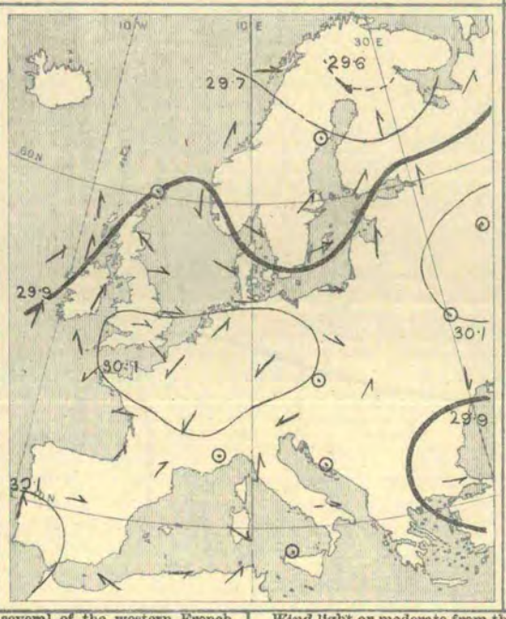
* An asterisk is inserted in all places for which the information is not usually received.
† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street For additional Reports of Sunshine see last page.

Sunday, 30th August.

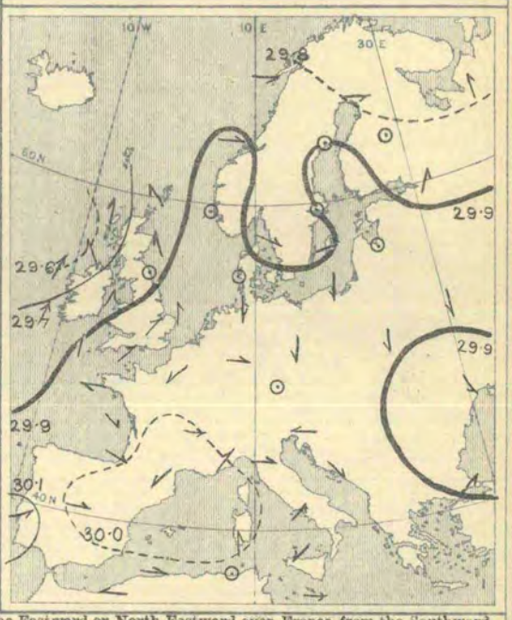
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine over the greater part of Europe, dull at several of the western French stations, with a thunderstorm at Biarritz. Becoming dull and unsettled later in all the more western parts of the United Kingdom, with considerable falls of rain in Ireland and Wales. Thunderstorms occurring over France and Switzerland in evening and night, and local showers over Russia.

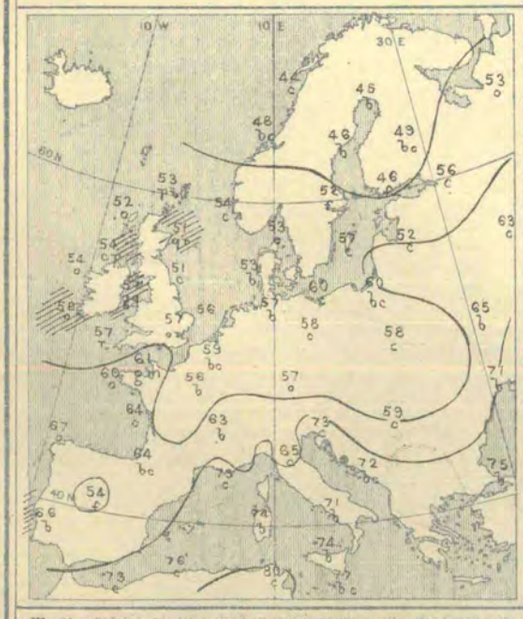
Temperature highest, 77° at Barcelona and Brindisi, 76° at Algiers and Malta, and 75° at Toulon, Oran, and La Calle; above 70° at nearly all the Mediterranean and Adriatic stations, and reaching 65° at Moscow. Lowest, (1) 44° at Bodö, 47° at Nairn, and 48° at Christiansund and Sumburgh Head; (2) 46° at Loughborough, 48° at Oxford, and 49° in London; below 55° in most parts of the United Kingdom. Frost on ground over central England in early morning. Daily maxima below 60° at several of our own western and northern stations, but reaching 67° at Cambridge and 68° at Loughborough. Rising to between 70° and 80° over France, to between 80° and 90° on the southern side of the Mediterranean, and to 108° at Biskra.

Wind light or moderate from the Eastward or North-Eastward over France, from the Southward in the west and north of our Islands, from the Westward over Denmark, Germany, and the east of England, and from the North-Westward in the south of Norway. Light from South-West or South over Finland and the Baltic Provinces and from the North-Eastward in the south of Russia. Variable over southern Europe and Algeria, as well as over the central parts of England. Southerly breeze setting in later over the whole of the United Kingdom and blowing strongly in the extreme west. Wind shifting to the North-West in the west of France.

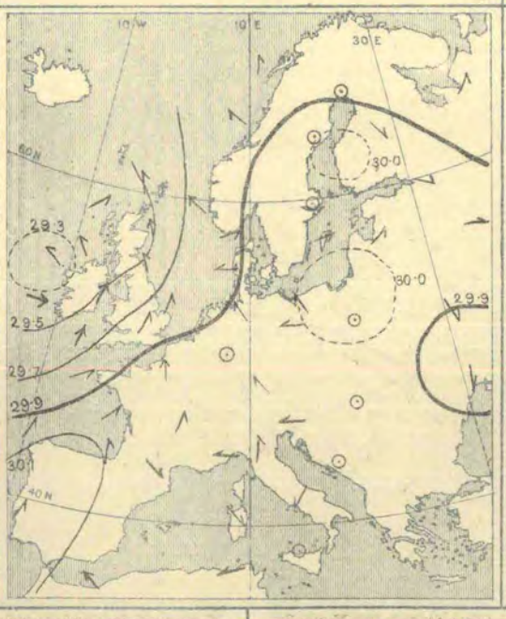
Barometer highest, 30·1 ins. and upwards in three anticyclonic areas, one lying over the south of Spain, another over Germany, the Netherlands, France, and the south of England, a third over central Russia. Lowest, 29·6 ins. and less in a depression lying over Lapland. Another disturbance apparently lying far away to the north-west of our Islands, and a small shallow system over the north-east of Spain. New and deeper depression advancing later to the west of Scotland; disturbance over Spain moving northwards to the west of France.

Monday, 31st August.

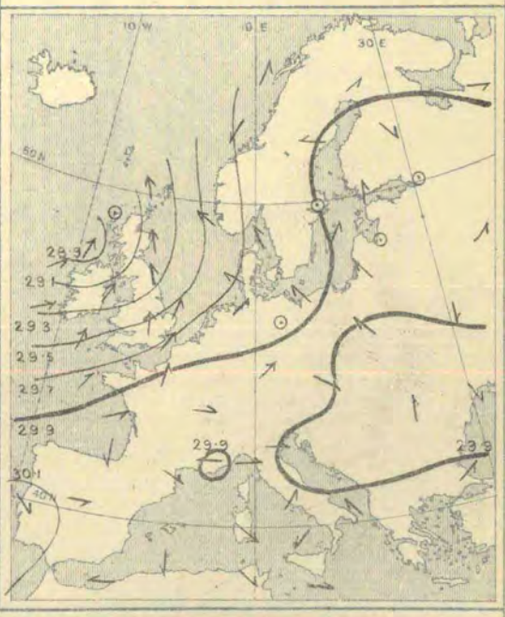
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather very dull, rainy, and unsettled again over the British Islands and their neighbourhood, with thunder at Sumburgh Head; cloudy over central Europe; fine in the north, as well as over the Iberian Peninsula and Mediterranean. Rain during day in all parts of north-western Europe, as well as over Switzerland and many parts of Germany and Austria; fall heaviest (0·8 in. and more) in extreme north-west of British Islands.

Temperature higher over our Islands than on Sunday morning, but low for time of year. Morning readings exceeding 70° at many Mediterranean stations and at Constantinople; much lower elsewhere. Below 60° over all the central land northern countries, and as low as 44° at Bodö, 45° at Haparanda, 46° at Helsingfors and Hernösand, 51° at Aberdeen, 53° at Fanö. Not exceeding 66° over our Islands later, but exceeding 80° in some of the southern parts of France, Austria, and Italy, touching 88° at Malta, and exceeding 110° at Biskra.

Wind extremely variable in direction and light in force over the greater part of the Continent. Southerly (South-South-West to South-South-East) over the United Kingdom and the Channel, and strong in force. Increasing to a gale from South and South-West over the British Islands, Channel, and North Sea later, and blowing very hard in the Straits of Dover.

Barometer highest, 30·1 ins. and more to 30·0 ins. over the Spanish Peninsula and south-west of France, exceeding 30·0 ins. over eastern Prussia, the Baltic Provinces, and Gulf of Bothnia. Lowest, 29·3 ins. and less in a deep depression approaching the north-west of Ireland from the south-westward. Depression apparently growing deeper later as it moved north-eastwards and spreading all over north-western Europe.

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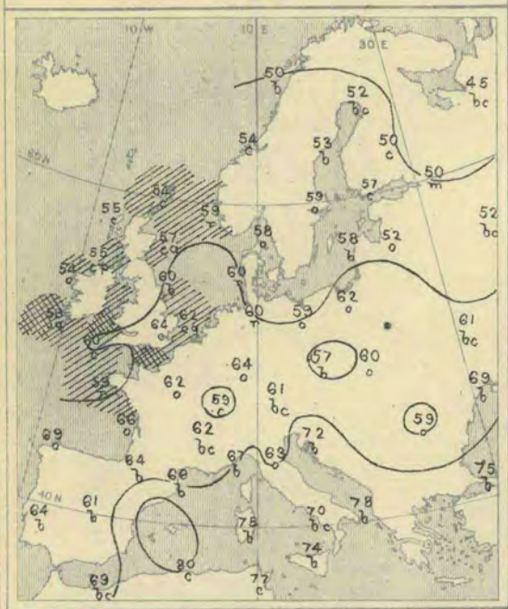
Tuesday, 1st September.

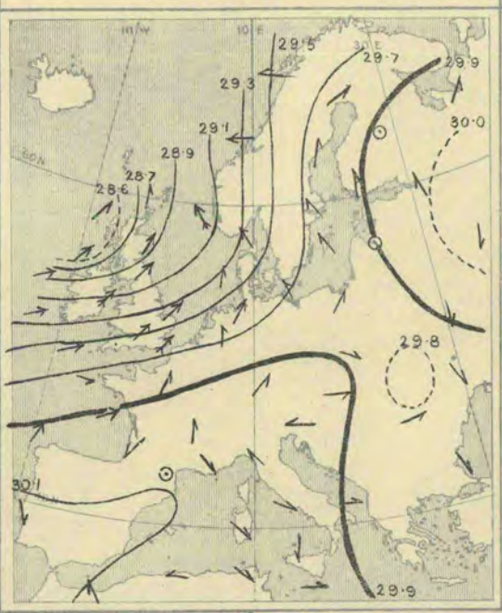
Temperature and Weather.

8 a.m.

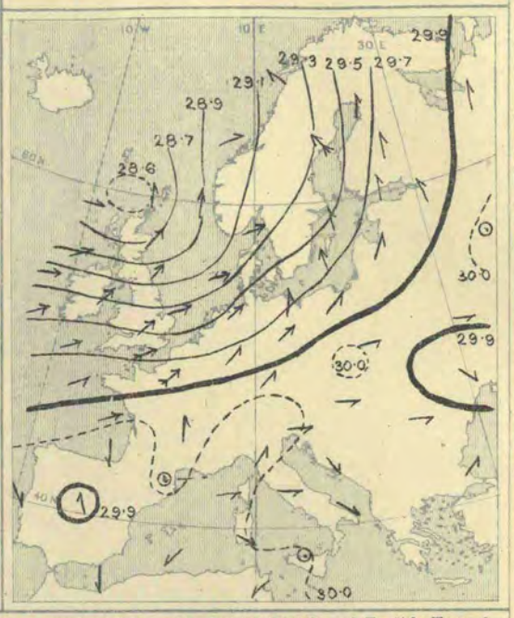


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning still very unsettled and showery over the whole of the British Islands and their neighbourhood, as well as on the eastern shores of the North Sea and some parts of the Baltic; fine over Russia and the north of Scandinavia, and also over south-western, southern, and south-eastern Europe. Rain over Scandinavia, and showers over the greater part of the British Islands and the west and north of France during day, as well as in the Netherlands and many localities on the Continent; no appreciable fall in the south-east of England.

Temperature less low over the United Kingdom than of late. Morning readings touching 60° at several of our own, the French, and German stations, and exceeding 70° over the Mediterranean and at Constantinople. Lowest, 45° at Archangel, 50° at St. Petersburg and Bodö, 52° at Moscow and Riga. Rising later to between 65° and 68° over England, to 70° and more over Germany, and to 80° and more in the south of France and in Italy, to 90° and more over Spain, and to upwards of 105° over central Algeria.

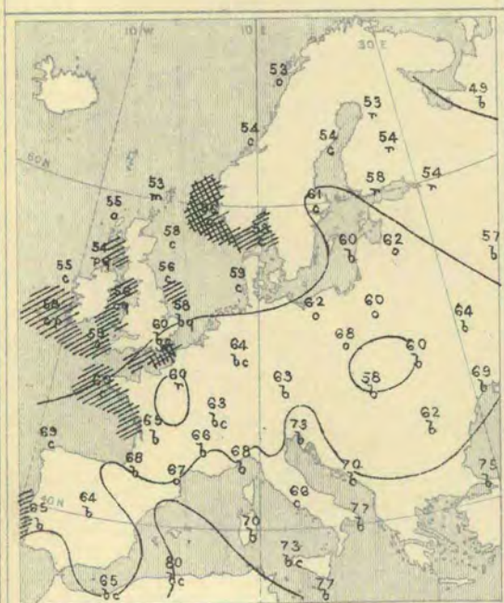
Wind South-Westerly, strong to a strong gale, over the British Islands and English Channel, Southerly and less strong over the North Sea, South-Easterly to Easterly in Norway. Light over the greater part of the Continent, and very variable over the southern, central, and eastern countries. Gale continuing over the British Islands all day and extending over north of France and the North Sea, but tending to veer a little over the United Kingdom.

Barometer highest, 30·1 ins. and more to 30·0 ins. over Spain, the southern parts of France, Switzerland, and south Germany; 30·0 ins. and more to 29·9 ins. over Russia. Lowest, 28·6 ins. and less in the depression off our extreme north-west coasts. Depression moving north-eastwards later, and rapid rise of barometer commencing in Ireland and western parts of Great Britain.

Wednesday, 2nd September.

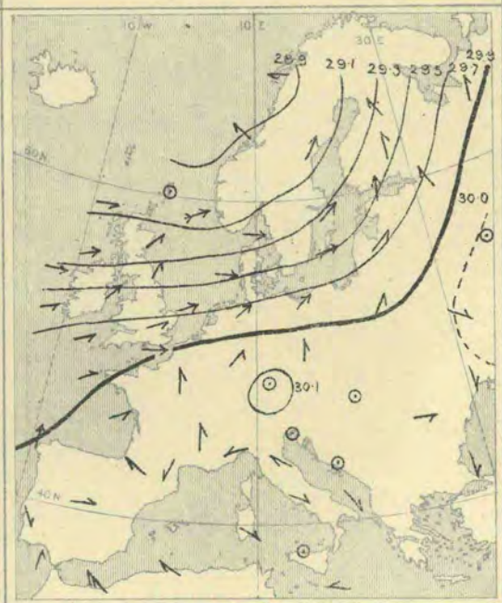
Temperature and Weather.

8 a.m.

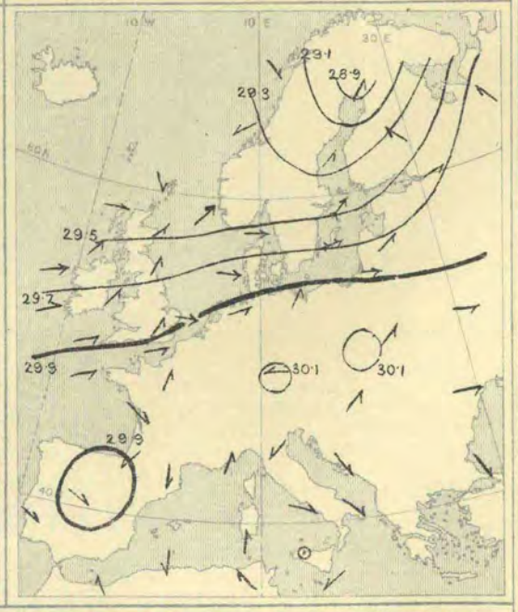


Barometer and Wind.

8 a.m.



6 p.m.



Weather very dull and rainy over northern Europe; dull over Germany and the North Sea; improving over the British Isles and north of France, but with showers in several places. Fine and bright over south-western, southern, and eastern Europe. Showers during day over the British Islands, as a whole, and the north of France; considerable rain in north of Scotland and many parts of northern Europe; thunderstorm in Caithness.

Temperature remaining low for time of year all over our Islands and north-western Europe—especially during daytime. Morning readings exceeding 80° over Algeria and 70° at many of the Mediterranean stations and Constantinople; below 60° over the British Isles and northern Europe, and as low as 49° at Archangel, 53° at Bodö and Sumburgh Head, 54° at St. Petersburg and Parsonstown, and 56° over the inland parts of England. Daily maxima, 60° to 67° over our Islands later, 70° and more in Germany, 80° to 86° in the south-west and south of France, 85° to 90° in the south of Italy and in Spain, and exceeding 100° over central Algeria. Succeeding night cold over England.

Wind very light and variable over southern and eastern Europe, Southerly to Westerly in the north and north-west, and blowing strongly in most places—a severe gale at Faerder and a fresh gale at Wisby. Moderating slowly over the United Kingdom later, and beginning to back towards south at our western stations, but South-Westerly gale becoming more general over the southern parts of Scandinavia and the Baltic.

Barometer highest, 30·1 ins. to 29·9 ins. over all the south-western, southern, and eastern countries. Lowest, 28·8 ins. at Bodö, and below 29·0 ins. in a large depression lying over Norway and adjacent parts of Atlantic. Gradients over the north-western and northern countries steep, but decreasing. Rising all day over the British Isles and their neighbourhood, falling fast over Finland and northern Europe, slightly over France and Spain. The depression noticed off the north-west of Norway in morning moving quickly to eastward.

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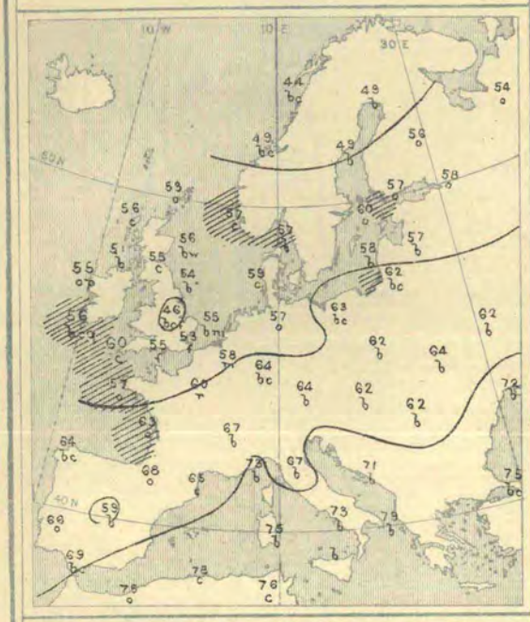
Thursday, 3rd September.

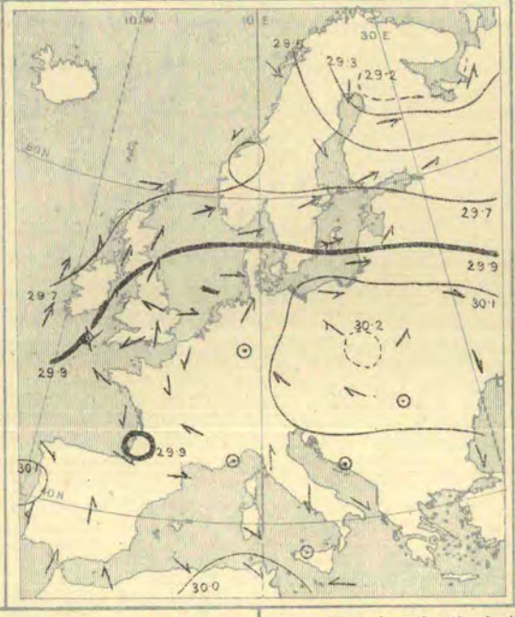
Temperature and Weather.

8 a.m.

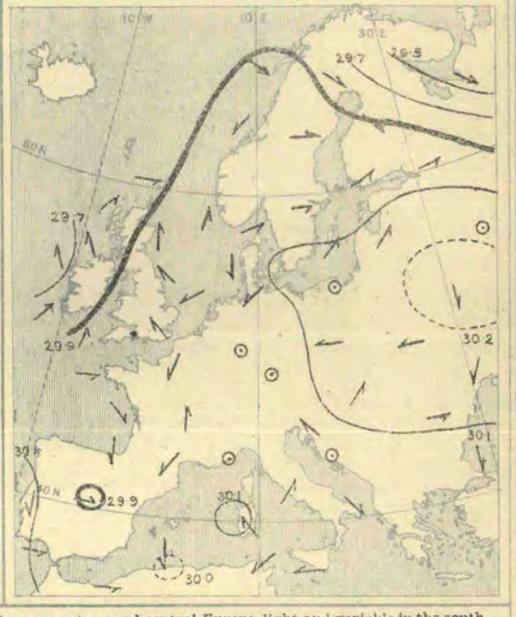


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning still fine and bright over south-western, southern, and south-eastern Europe, and improving over northern and north-western Europe as a whole, though showery in the west of Ireland, rainy and unsettled in several parts of France. Slight showers in many parts of our Islands later. Very gloomy, close, and damp over London in evening; heavy thunderstorms over France, the Netherlands, and Denmark during day.

Temperature continuing low over all the north-western and northern countries, very low over England in early morning. Morning readings still exceeding 70° over the most southern countries (78° at Algiers, 77° at Malta), but below 60° over all the northern and north-western regions, and as low as 46° at Loughborough, 47° at Oxford, 49° at York, and also at Haparanda. Not exceeding 65° at any of our own stations during day, but rising to 80° and more in many parts of Germany and the west and south of France, to 85° and more in the south of Austria and north of Italy, and to upwards of 100° over central Algeria (108° at Biskra).

Wind very light and anticyclonic over eastern and central Europe, light and variable in the south, but Westerly on the Portuguese coast. Southerly and South-Westerly over the United Kingdom (fresh in the west); strong North-Westerly to Westerly over Scandinavia, strong to a gale from West over the Baltic, moderate Westerly over Finland. Backing to Eastward in south-east of England later and to North in Denmark, but remaining very light. Not much change elsewhere.

Barometer highest, 30·2 ins. and more to 30·0 ins. in a large anticyclone covering south-eastern and central Europe, and 30·1 ins. and more to 30·0 ins. over the Iberian Peninsula. Lowest, 29·2 ins. and less in a large depression over the north of Russia, White Sea, and Kola Peninsula; 29·7 ins. and less off our extreme north-western coasts, and about 29·9 ins. in a local depression in the south-west of France. Latter disturbance moving north-eastwards later, causing slight fall of barometer over the Netherlands and north-east of France, but mercury rising steadily in the west of our Islands.

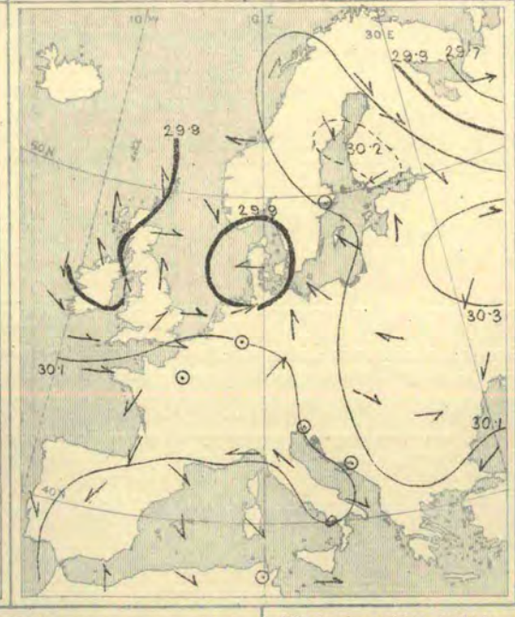
Friday, 4th September.

Temperature and Weather.

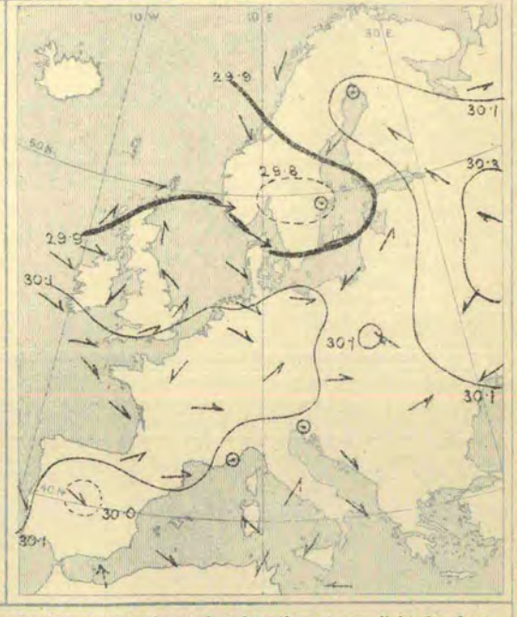
8 a.m.

Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over the Spanish Peninsula, Mediterranean, eastern, central, and northern Europe; fair over England, but still unsettled and rainy in several parts of France, and also in the western and northern parts of the British Isles. Showers later in most parts of our Islands (heavy at Liverpool); thunderstorms in the northern parts of Great Britain and southern parts of France; a good deal of rain in Sweden and on the eastern side of the Baltic and Gulf of Finland. Appearance over England improving.

Temperature continuing low over the United Kingdom. Morning readings ranging between 70° and 80° on the various shores of the Mediterranean and at Constantinople, much lower elsewhere; below 60° all over the British Isles, north-western and northern Europe; and lowest of all, 43° at Haparanda, 44° at Bodö, 46° at Archangel and Kuopio, 47° at Hernösand, 50° at York, and 52° at Mullaghmore. Not reaching 70° at any of our own stations during day, but exceeding 80° over some of the southern Departments in France, in Austria, Italy, and Spain, and exceeding 100° over central Algeria.

Wind very variable; light to moderate in force in the north and north-west, very light elsewhere. Mainly Westerly in the far north, but Easterly over Denmark and the Baltic. South-Westerly to Southerly over the greater part of the United Kingdom, and Westerly to Northerly in Ireland. Backing towards South-West on our north-western coasts later.

Barometer highest, 30·3 ins. to 30·1 ins. over Russia, Austria, and eastern Germany, and in a ridge stretching thence over the Baltic and Scandinavia, and 30·2 ins. to 30·1 ins. over the Bay of Biscay, France, and the north-west of Spain. Lowest, 29·9 ins. and less over the west of Scotland and north of Ireland, and also in a shallow depression over Denmark and Holstein. Rising throughout our Islands later, most in Ireland. Gradients very slight.

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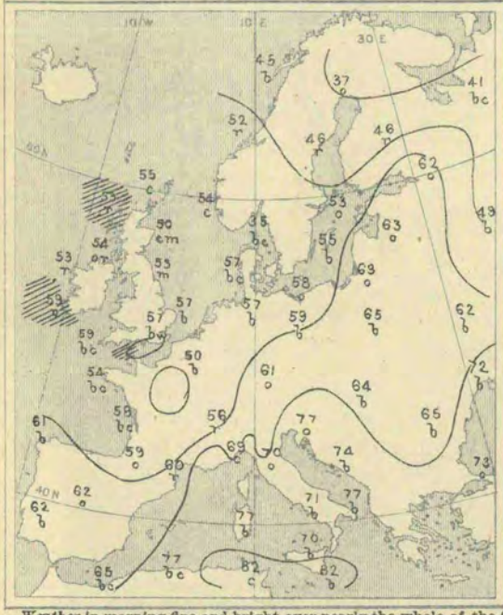
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 5th September.

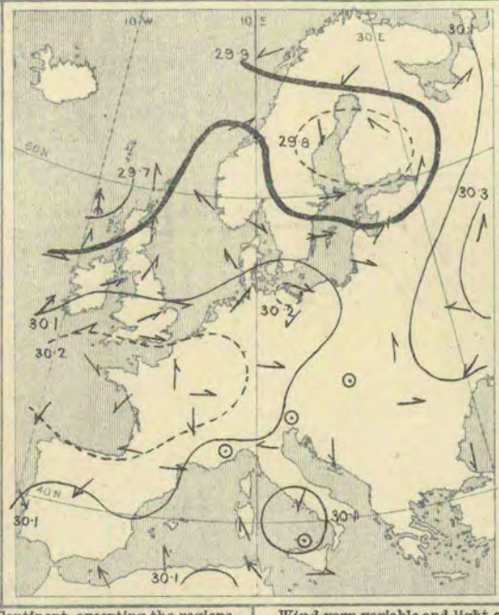
Temperature and Weather.

8 a.m.



Barometer and Wind.

8 a.m.



6 p.m.

Weather in morning fine and bright over nearly the whole of the Continent, excepting the regions lying to the northward of the Baltic; fine also over the Channel, England, and the North Sea, but dull in Ireland, Scotland, and various parts of Scandinavia and Finland, with rain at many stations. Much rain at our western stations later, and considerable quantities in the southern parts of France, northern Italy, Switzerland, and central Europe, and showers in several parts of northern Europe.

Temperature not ' Mediterranean western and ' Uleaborg, 45° 68° over Great Spain, and ex- lergoing much change. Morning readings still exceeding 70° at most ions (80° to 82° over Tunis and at Malta), but below 60° over all the north- ıern countries, and as low as 37° at Haparanda, 41° at Archangel and 10, 46° at Kuopio, 50° at Aberdeen, and 52° at Nairn. Daily maxima, 60° to in and Germany, above 70° over France, above 80° over Austria, Italy, and g 100° over central Algeria. Falling over Finland towards evening.

Wind very variable and light over eastern, central, western, and southern Europe, North-Easterly over the Peninsula; Westerly to Southerly over the British Islands, the North Sea, the southern half of Scandinavia, and the Baltic, and blowing a fresh to strong breeze from South in the western parts of Ireland and Scotland; Easterly over Lapland and Finmark, Northerly over the north of Sweden. Veering Westward in Scotland later and becoming Northerly over Finland.

Barometer highest, (1) 30·2 ins. and more over the Bay of Biscay, Spain, France, Germany, and the south of England; (2) 30·3 ins. and more to 30·1 ins. over Russia and Hungary; exceeding 29·9 ins. over Lapland. Lowest, (1) 29·7 ins. and less off our extreme north-western coasts; (2) 29·8 ins. and less in a depression over Finland and the Gulf of Bothnia. Northern depression moving eastwards to north of Russia later; new (secondary) disturbances approaching our western coasts.

GENERAL NOTES.

The weather remained in an unsettled windy cyclonic condition over the greater part of north-western and northern Europe during the greater part of this week, owing to the continued advance of large depressions from the Atlantic over the north-western and northern parts of the British Islands, on their way from the Atlantic to Scandinavia. The disturbance of September 1st was particularly large and deep—its minimum pressures being less than 28·6 ins., and its gradients for Southerly to Westerly winds very steep. It was, however, the last of the series, for although smaller disturbances appeared later on they were comparatively unimportant, and the weather over England and the North Sea showed signs of permanent, if somewhat unsteady, improvement. The shallow system of the 2nd, however, caused heavy rains and thunder on the Continent. At the close of the period the Continental pressures were increasing; Easterly breezes, however, were prevalent over the most northern countries, while North-Westerly winds were reported in the west, and variable airs over central Europe and the Mediterranean. The morning temperatures on Saturday exceeded 60° over central and southern Europe, but were much lower over the United Kingdom and north of France, while over the eastern parts of Lapland and the Kola Peninsula readings much below 40° heralded the approach of snow and cold rains to those regions.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 206.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	33·6	?	35	?	EASTBOURNE	26·2	?	28	?
OSWALDKIRK (Yorkshire)	37·9	?	40	?	TORQUAY	43·6*	?	47*	?
WORKSOP	40·2	+11·2	43	+12	ARLEY COTTAGE (County Cavan)	26·5	?	28	?
THURCASTON (Leicestershire)	37·8	+ 7·8	40	+ 8	GUERNSEY	32·8*	?	36*	?

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

REPORTS received too late for insertion in their proper places.

DATE OF REPORT.	NAMES OF STATIONS.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each Day.	Of Lowest each Day.	For whole of each Day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-Degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
July 4th, 1891	Glencarron	67	41	62·7	49·1	55·4	+1·7	93	0	6	0·88	−0·40	—	—	—	—
„ 11th, „	Glencarron	62	45	58·1	47·5	52·4	−1·6	73	0	5	1·57	+0·24	—	—	—	—
„ „ „	York	—	—	—	—	—	—	—	—	—	—	—	24·3	−12·7	21	−10
„ 18th, „	York	—	—	—	—	—	—	—	—	—	—	—	30·8	−5·7	27	− 5
„ „ „	Worksop	—	—	—	—	—	—	—	—	—	—	—	? 23·4	−10·6	22	−10
„ 25th, „	Eastbourne	—	—	—	—	—	—	—	—	6	1·37	−0·09	43·1	?	40	?
August 1st, „	Glencarron	64	44	57·8	47·1	51·9	−2·8	69	0	—	—	—	—	—	—	—
„ „ „	Cambridge	—	—	—	—	—	—	—	—	6	0·86	?	27·9	−15·1	26	−14
„ „ „	Stamford	71	41	64·6	47·1	55·2	−6·3	92	0	4	0·33	−0·60	—	—	—	—
„ „ „	Laudale	63	47	60·2	49·6	54·6	−2·4	88	0	6	0·91	+0·21	26·0	−5·5	25	− 6
„ 22nd, „	Newton Reigny	68	44	63·1	48·7	55·5	+0·4	95	0	6	2·94	+2·24	18·6	−12·5	19	−12
„ 29th, „	Newton Reigny	64	44	60·3	48·6	54·1	−0·2	85	0							

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 36.] *Third Series.* WEEK ENDING SATURDAY, 12TH SEPTEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 212.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH	74	35	61·3	48·8	55·0	3 above.	91	+22	0	− 1	1617	+181	621	+ 79
1. SCOTLAND, EAST	81	34	67·6	47·9	57·3	4 above.	107	+22	0	− 1	1822	− 33	670	+101
2. ENGLAND, N.E.	80	41	68·7	50·6	59·2	4 above.	120	+28	0	0	1869	−102	593	+ 95
3. ENGLAND, EAST	84	42	73·0	48·3	60·0	3 above.	126	+21	0	0	2168	−123	689	+128
4. MIDLAND COUNTIES	86	39	74·0	47·2	59·9	4 above.	125	+16	0	0	2154	−107	668	+116
5. ENGLAND, SOUTH	82	44	71·7	53·2	62·0	4 above.	140	+23	0	0	2343	−126	565	+149
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST	76	40	65·8	49·7	57·3	3 above.	107	+22	0	0	1991*	+ 55	462*	+ 45
7. ENGLAND, N.W.	81	42	70·3	53·4	61·5	6 above.	137	+10	0	0	2083	+ 28	449	+ 35
8. ENGLAND, S.W.	84	45	69·4	53·4	61·0	4 above.	133	+29	0	0	2185	− 94	434	+118
9. IRELAND, NORTH	77	37	66·0	52·2	58·7	4 above.	117	+27	0	0	2051	+ 51	391	+ 29
10. IRELAND, SOUTH	78	36	67·3	50·4	58·5	2 above.	116	+19	0	0	2197	+ 7	309	+ 31
— CHANNEL ISLANDS	81	51	69·6	56·9	62·9	3 above.	146	+22	0	0	2506	− 15	162	+ 40

Rainfall.

DISTRICTS. (See p. 212.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH	5	6	4 less.	163	− 1	32·8	+ 2·2
1. SCOTLAND, EAST	2	2	5 less.	118	−17	17·5	− 3·6
2. ENGLAND, N.E.	2	2	4 less.	117	− 7	15·2	− 2·1
3. ENGLAND, EAST	1	1	6 less.	124	+ 2	16·4	− 0·6
4. MIDLAND COUNTIES	1	1	5 less.	120	0	17·6	− 1·6
5. ENGLAND, SOUTH	2	1	5 less.	115	− 1	18·3	+ 0·5
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST	3	8	3 less.	127	−15	24·8	− 6·9
7. ENGLAND, N.W.	2	6	3 less.	115	−15	20·9	− 1·2
8. ENGLAND, S.W.	2	5	4 less.	122	−11	24·2	− 1·2
9. IRELAND, NORTH	4	5	4 less.	144	−10	21·1	− 2·7
10. IRELAND, SOUTH	3	9	1 more.	131	−10	23·1	− 2·8
— CHANNEL ISLANDS	1	2	5 less.	122	−18	19·5	− 0·7

Bright Sunshine.

DISTRICTS. (See p. 212.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH	20	−15	22	−18	958	+ 14	28	0
1. SCOTLAND, EAST	42	+14	46	+15	1065	− 36	31	− 1
2. ENGLAND, N.E.	50	+22	55	+24	1015	+ 14	30	0
3. ENGLAND, EAST	66	+31	73	+35	1129	− 79	34	− 2
4. MIDLAND COUNTIES	59	+27	65	+31	1088	+ 9	32	0
5. ENGLAND, SOUTH	58	+21	65	+26	1239	+ 68	37	+ 2
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST	44	+14	47	+15	1138	+ 53	34	+ 2
7. ENGLAND, N.W.	49	+19	53	+20	1040	− 31	31	− 1
8. ENGLAND, S.W.	54	+14	60	+18	1305	+ 30	39	+ 1
9. IRELAND, NORTH	39	+12	43	+15	1046	+ 59	31	+ 2
10. IRELAND, SOUTH	43	+11	48	+14	1142	− 3	34	0
— CHANNEL ISLANDS	79	+33	89	+40	1592	+104	48	+ 3

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather was somewhat unsettled during the earlier part of the period, with heavy falls of rain over the south of Ireland, and showers in nearly all other parts of the Kingdom. As the week progressed, however, very fine and warm weather set in over England, and subsequently extended to Ireland and nearly all parts of Scotland.

Temperature has been above the mean in all districts, the excess having ranged from 2° in "Ireland S.," to 4° in most other districts, and to as much as 6° in "England N.W." The maximum readings during the latter part of the week were considerably higher than any previously recorded in either of the three preceding months. Over England they varied between 80° and 86°, over Scotland between 74° and 81°, and over Ireland between 77° and 78°. The lowest of the minima were registered at most stations either on the 6th or 7th, and were rather low generally. In the north and east of Scotland they ranged from 34° to 35°, over Ireland from 36° to 37°, and over England from 39° in the "Midland Counties," to 45° in "England S.W." In the "Channel Islands" the lowest reading was 51°. *Range* of temperature during the week was very large; in the "Midland Counties" and "Scotland E." it amounted to 47°.

Rainfall has been a little more than the mean in "Ireland S.," but in all other parts of the Kingdom a deficit is shown.

Bright Sunshine has continued short of the mean in "Scotland N.," but in all other districts it has been greatly in excess. The recorded percentage of the possible duration was as high as 89 in the "Channel Islands," 73 in "England E.," and 65 both in the "Midland Counties" and "England S." Elsewhere it ranged from 60 in "England S.W.," to 43 in "Ireland N.," and to only 22 in "Scotland N."

Barometer and Wind.—During the earlier part of the week depressions continued to move north-eastwards over the extreme west and north of our Islands, and the winds were moderate to fresh from the South-Westward. Later on, however, an anticyclone spread over us from the Continent, causing the wind to become light and variable, and the weather very bright and dry. At the close of the period, the wind was Easterly on all except our northern coasts, but the barometer had begun to fall, and there were some indications of the approach of depressions from the south-westward.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 211 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	62	46	56·6	49·3	52·8	+ 1·6	76	0	6	0·88	+0·11	*	*	*	*
	Stornoway	60	37	58·4	47·3	52·6	+ 0·9	74	0	5	0·42	−0·50	9·5	−15·7	10	−18
	Wick	74	45	63·3	49·3	56·0	+ 3·7	98	0	2	0·11	−0·48	*	*	*	*
	Lairg Ⓢ	71	35	63·3	46·5	54·5	+ 2·5	88	0	6	0·20	−0·49	*	*	*	*
	Glencarron Ⓢ	70	42	62·7	48·5	55·3	+ 3·8	93	0	4	0·66	−0·89	*	*	*	*
	Fort Augustus Ⓢ	74	41	65·9	50·2	57·7	+ 4·4	110	0	4	0·34	−0·51	25·7	?	28	?
	Fort William Ⓢ	69	41	62·3	50·4	56·1	+ 2·4	99	0	5	1·73	+0·23	25·1	?	27	?
1. SCOTLAND, E.	Nairn	76	42	67·4	48·6	57·6	+ 3·8	109	0	2	0·15	−0·45	*	*	*	*
	Aberdeen	79	39	67·1	48·7	57·5	+ 3·7	109	0	1	0·02	−0·66	43·6	+14·8	47	+15
	Braemar Ⓢ	75	34	63·3	47·2	54·9	+ 4·4	90	0	2	0·19	−0·61	39·2†	? †	43†	?†
	Ochtertyre Ⓢ	81	37	68·7	45·1	56·3	+ 2·6	100	0	4	0·39	−0·45	*	*	*	*
	Leith	81	41	70·3	48·4	58·8	+ 3·3	118	0	3	0·31	−0·27	*	*	*	*
	Marchmont Ⓢ	78	41	68·6	49·3	58·5	+ 5·3	116	0	2	0·22	−0·58	43·3	?	48	?
2. ENGLAND, N.E.	Alnwick Castle	73	42	65·7	49·0	57·0	+ 3·3	105	0	2	0·39	−0·31	*	*	*	*
	Durham	78	41	70·7	49·2	59·4	+ 4·7	122	0	3	0·16	−0·42	48·4	+21·4	53	+24
	Shields	77	46	68·1	51·0	59·1	+ 4·2	120	0	1	0·13	−0·44	*	*	*	*
	Scarborough Ⓜ	77	47	68·6	53·0	60·4	+ 4·8	129	0	1	0·17	−0·47	*	*	*	*
	York	80	44	72·9	47·1	59·4	+ 3·0	122	0	2	0·07	−0·56	48·8	+22·1	54	+25
	Spurn Head	72	50	66·1	54·1	59·8	+ 2·5	125	0	1	0·09	−0·38	*	*	*	*
3. ENGLAND, E.	Hillington Ⓜ	82	42	74·7	47·2	60·3	+ 3·8	128	0	1	0·08	−0·55	59·5	+28·9	65	+30
	Yarmouth	69	48	66·3	53·1	59·4	+ 1·8	122	0	1	0·02	−0·63	*	*	*	*
	Geldeston	80	43	73·7	46·6	59·5	+ 2·1	123	0	2	0·05	−0·55	69·6	+32·8	77	+36
	Cambridge	84	45	77·0	47·7	61·6	+ 4·0	137	0	1	0·04	−0·48	68·7	+35·5	76	+39
	Rothamsted	79	43	73·4	46·7	59·4	+ 3·0	122	0	2	0·04	−0·58	64·9	?	72	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	84	42	75·0	44·7	59·1	+ 2·8	120	0	2	0·20	−0·35	*	*	*	*
	Loughborough	86	44	76·1	47·9	61·3	+ 4·1	135	0	1	0·10	−0·52	*	*	*	*
	Stamford (Ketton Hall)	85	40	76·7	44·2	59·7	+ 2·8	124	0	1	0·04	?	*	*	*	*
	Cheadle Ⓜ	79	43	71·7	51·7	61·2	+ 6·7	134	0	2	0·35	−0·45	*	*	*	*
	Churchstoke Ⓜ	80	39	73·0	47·3	59·5	+ 4·9	123	0	2	0·16	−0·48	55·6	+25·2	61	+26
	Hereford Ⓜ	80	41	74·4	48·5	60·8	+ 4·2	132	0	1	0·06	−0·58	*	*	*	*
	Cirencester	77	40	71·6	46·1	58·2	+ 2·6	113	0	1	0·12	−0·61	60·2	+29·4	67	+33
	Oxford	81	45	73·4	47·3	59·7	+ 2·4	124	0	1	0·05	−0·55	63·5	+29·9	71	+34
5. ENGLAND, S.	London	82	49	76·0	51·6	63·2	+ 4·3	148	0	1	0·11	−0·41	52·6†	+24·1†	58†	+26†
	Strathfield Turgiss Ⓜ	80	44	74·0	47·1	59·8	+ 2·4	125	0	2	0·13	−0·45	*	*	*	*
	Dungeness	71	50	67·9	56·7	62·0	+ 3·0	140	0	1	0·14	−0·46	*	*	*	*
	Hastings (St. Leonards)	77	51	70·7	56·7	63·4	+ 3·8	150	0	2	0·05	−0·57	60·5	+21·8	67	+24
	Southampton	80	50	73·0	52·6	62·3	+ 3·5	142	0	2	0·11	−0·58	59·1	+21·3	66	+25
	Hurst Castle	74	55	69·3	56·7	62·7	+ 3·7	145	0	1	0·05	−0·65	*	*	*	*
	Stowell Ⓜ	78	47	71·1	51·1	60·6	+ 4·1	130	0	2	0·15	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	72	41	64·4	50·5	57·1	+ 2·8	106	0	4	1·05	−0·43	*	*	*	*
	Glasgow	72	46	64·7	51·6	57·8	+ 4·1	111	0	3	0·61	−0·31	34·7	+10·7	36	+10
	Ardrossan	72	47	65·4	51·7	58·2	+ 2·8	113	0	4	0·58	−0·26	*	*	*	*
	Glenlee Ⓢ	74	40	67·5	45·6	56·0	+ 2·7	98	0	4	0·96	−0·17	*	*	*	*
	Douglas (Isle of Man)	76	45	66·8	49·1	57·5	+ 2·7	109	0	2	0·76	−0·12	53·2	+19·4	58	+21
7. ENGLAND, N.W.	Newton Reigny	80	42	70·8	47·9	58·8	+ 5·7	118	0	3	0·16	−0·62	52·2	+22·2	57	+25
	Stonyhurst	76	45	68·7	52·2	60·1	+ 4·9	127	0	2	0·66	−0·46	50·5	+20·7	55	+22
	Blackpool Ⓜ	79	51	69·6	55·2	62·1	+ 6·3	141	0	2	1·20	+0·32	45·3	+15·3	50	+17
	Manchester	80	45	71·5	52·2	61·4	+ 5·8	136	0	2	0·57	−0·33	*	*	*	*
	Liverpool Obsy. (Bidston)	79	49	71·1	54·9	62·6	+ 5·7	144	0	2	0·50	−0·22	*	*	*	*
	Llandudno Ⓜ	81	50	71·9	56·9	64·0	+ 6·4	154	0	1	0·33	−0·37	46·0	+17·5	51	+21
	Holyhead	75	48	68·7	54·3	61·2	+ 3·9	134	0	3	0·50	−0·21	*	*	*	*
8. ENGLAND, S.W.	Llandovery	84	45	76·1	50·4	62·6	+ 6·2	144	0	3	0·71	−0·39	*	*	*	*
	Pembroke	71	47	65·3	53·7	59·2	+ 1·8	120	0	4	0·45	−0·33	44·7	+ 8·7	50	+10
	Arlington (N. Devon)	77	47	70·3	52·7	61·1	+ 5·3	134	0	2	0·75	−0·36	*	*	*	*
	Cullompton Ⓜ	79	45	72·6	47·9	59·7	+ 3·3	124	0	2	0·15	−0·62	56·6	+22·6	63	+26
	Falmouth	69	51	64·9	56·3	60·2	+ 2·2	127	0	3	0·65	−0·39	54·5	+16·8	61	+20
	Plymouth	76	54	69·4	56·2	62·5	+ 3·9	144	0	2	0·30	−0·56	53·4	+16·4	59	+18
	Prawle Point	72	54	66·9	56·7	61·6	+ 3·8	137	0	1	0·22	−0·30	*	*	*	*
9. IRELAND, N.	Malin Head	73	49	63·6	53·7	58·4	+ 3·9	115	0	4	0·44	?	*	*	*	*
	Londonderry	77	46	68·4	53·6	60·6	+ 5·7	130	0	4	0·78	−0·10	*	*	*	*
	Mullaghmore	75	48	65·3	54·7	59·8	+ 3·5	125	0	4	0·30	−0·75	*	*	*	*
	Belmullet	71	46	63·3	54·0	58·4	+ 0·9	115	0	4	0·33	?	*	*	*	*
	Markree Castle	75	37	66·3	50·5	58·0	+ 3·9	112	0	4	0·40	−0·36	29·1	+ 6·1	32	+ 7
	Brookeborough	76	39	67·3	49·8	58·1	+ 4·8	113	0	2	0·65	−0·22	*	*	*	*
	Armagh	75	43	67·9	50·1	58·6	+ 4·2	116	0	4	0·24	−0·51	46·7	+21·7	51	+23
	Donaghadee	70	51	64·9	54·3	59·4	+ 4·5	122	0	4	0·39	−0·32	*	*	*	*
	Edgeworthstown	76	40	66·7	48·9	57·4	+ 3·3	108	0	2	0·57	−0·18	*	*	*	*
10. IRELAND, S.	Dublin	76	45	68·3	52·8	60·2	+ 3·9	127	0	1	0·11	−0·47	46·4	+14·7	51	+16
	Parsonstown	78	38	69·3	49·3	58·8	+ 3·6	118	0	3	0·38	−0·37	47·4	+18·6	52	+20
	Kilkenny	75	38	68·4	47·1	57·2	+ 1·1	106	0	2	0·37	−0·39	*	*	*	*
	Waterford	73	38	67·0	50·0	58·1	+ 1·1	113	0	3	0·67	−0·18	*	*	*	*
	Roche's Point	68	43	62·1	51·4	56·5	− 1·0	102	0	4	1·57	+0·62	*	*	*	*
	Valencia	74	43	65·3	51·7	58·2	+ 1·0	113	0	4	2·82	+1·75	35·6	+ 4·9	40	+
	Killarney	77	36	? 69·2	? 49·5	?58·9	?+ 2·4	?118	0	3	0·77	?	*	*	*	*
	Foynes	77	44	68·8	51·6	59·8	+ 4·0	125	0	3	0·36	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	66	55	64·1	57·1	60·4	+ 1·5	129	0	2	0·38	−0·39	*	*	*	*
	Jersey	81	51	75·0	56·7	65·4	+ 4·6	164	0	0	—	−0·69	79·0	+33·5	89	+40

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

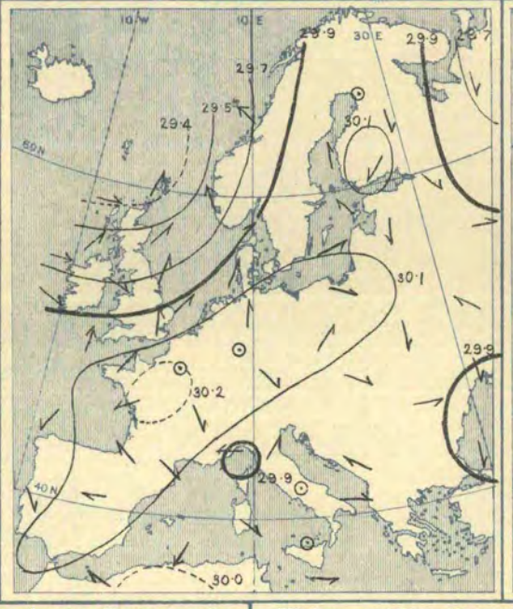
† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

III.—SUMMARY OF WEATHER OVER EUROPE.

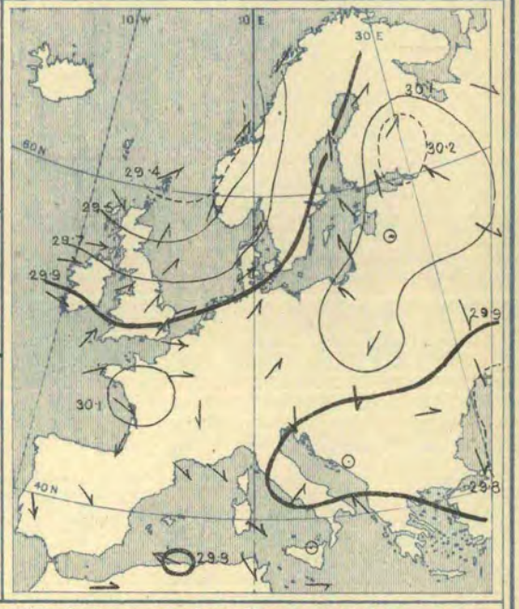
Sunday, 6th September.

Temperature and Weather. — 8 a.m.

Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright over south-western, southern, and eastern Europe, as well as in several parts of France and Germany; cloudy, more or less, over the United Kingdom, the North Sea, and Scandinavia, with showers in several places; rain at Breslau. Heavy rain later in Norway, and also in Austria; smaller quantities over the British Islands generally, the Netherlands, and some parts of Germany; snow at Haparanda.

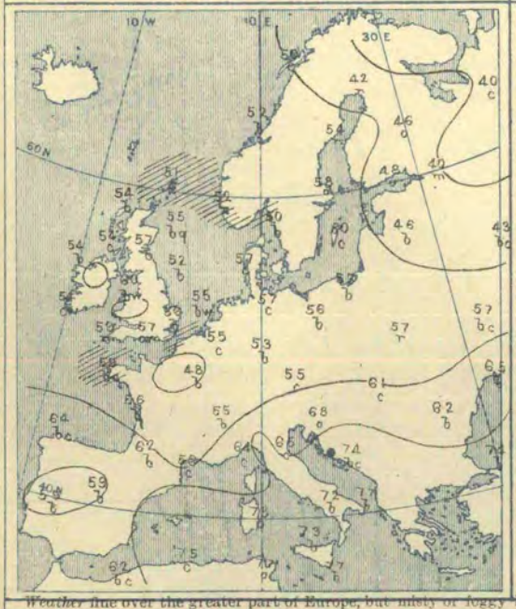
Temperature not changing much over western Europe, but low in the north. Morning readings still ranging from 70° to 77° on the Mediterranean coasts and at Constantinople, but much lower elsewhere and irregular. Below 60° over the whole of our Islands and the greater part of France and Germany, and as low as 33° at Uleaborg, 37° at Archangel and Haparanda, 38° at Kuopio. Rising later to between 60° and 66° over the greater part of the United Kingdom, to nearly 70° over Germany, to between 70° and 80° over France, and to 85° or more in many parts of southern Europe, the highest readings of all being 91° at Brindisi and 90° at Palermo.

Wind very variable and light over the Continent, as a whole; Westerly to Southerly, and fresh, over the British Islands, North Sea, and Scandinavia; Northerly, and light, over Finland and northern Russia. Becoming strong from Westward in many parts of our Islands later and strong from south in some parts of Norway. Veering to the North-Westward at some of our extreme western stations in evening.

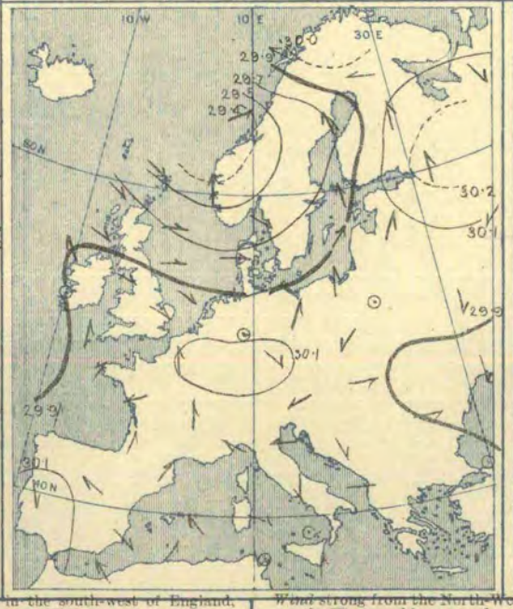
Barometer highest, 30·2 ins. and more to 30·0 ins. over Spain, France, Germany, the Baltic, and Sweden. Lowest, 29·4 ins. in a large depression, the centre of which lay off the north of Scotland; 29·8 ins. and less over the north-east of Russia; 29·9 ins. and less over the Black Sea and in a small depression near Nice. The depression off our extreme northern coasts moving eastwards later and barometer rising over Ireland. Continental high-pressure system undergoing various modifications, but remaining fairly well established.

Monday, 7th September.

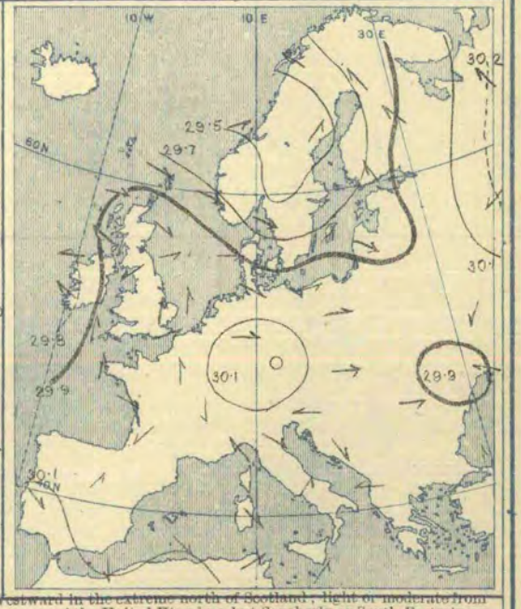
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fine over the greater part of Europe, but misty or foggy in the south-west of England, and rainy at several of the Scandinavian stations, as well as at Wick, Cracow, and Vienna. Rain extending later from the south-westward over all the more western parts of the United Kingdom, the fall being heavy (0·8 in.) at Valencia Island; large quantities also reported over Finland and Lapland.

Temperature highest, 83° at Sfax, 78° at Leghorn and La Calle, and 77° at Brindisi, Tunis, and Malta; above 70° on the shores of the Mediterranean and Adriatic generally. Lowest, 40° at Archangel and St. Petersburg, 42° at Haparanda, 43° at Moscow, and 44° at Uleaborg; below 50° over the northern parts of Scandinavia and Russia generally, and also over central Ireland; very little above that point over central England. Rising during day to between 65° and 70° at most of the English stations; exceeding 70° in France and Germany, and exceeding 80° in many parts of southern Europe, the highest readings of all being 91° at Brindisi and 88° at Cagliari and Malta.

Wind strong from the North-Westward in the extreme north of Scotland; light or moderate from the Westward in most other parts of the United Kingdom, but Southerly or South-Easterly on our extreme south-west coasts. Light from the Southward in France, and from the South-Westward over the Netherlands and north Germany; strong to a gale from between South and South-East in Scandinavia. Light from the North-Westward in Austria and Italy, variable in Spain, South-Westerly in Algeria. Subsequently shifting to the Eastward or South-Eastward in the north-west of our Islands and backing to the Southward in the south-east of England. Blowing strongly from the Westward over Denmark and the south of Norway.

Barometer highest, 30·2 ins. and upwards over the central parts of northern Russia; 30·1 ins. and upwards over south Germany and the east of France, and also over the south-west of Spain. Lowest, 29·4 ins. and less in a well-marked and rather deep depression lying off the west of Norway; 29·9 ins. and less in another disturbance to the south-west of our Islands, and also in a large shallow area lying over the Black Sea and the neighbouring countries. Northern depression subsequently moving eastwards over Scandinavia; disturbance to south-west of our Islands advancing nearer our shores, and barometer falling at most of our western stations.

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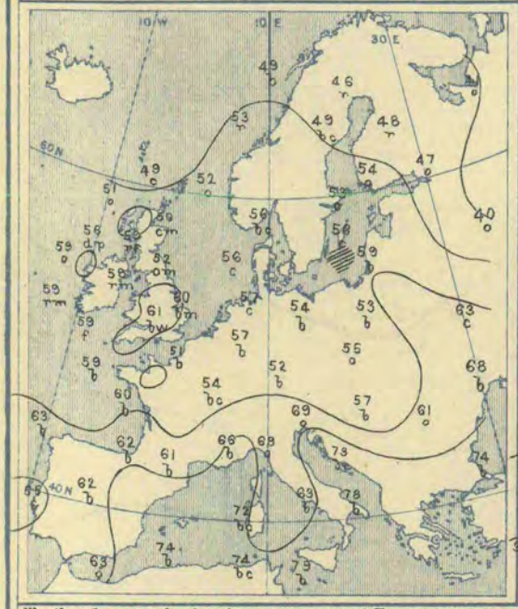
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 8th September.

Temperature and Weather.

8 a.m.

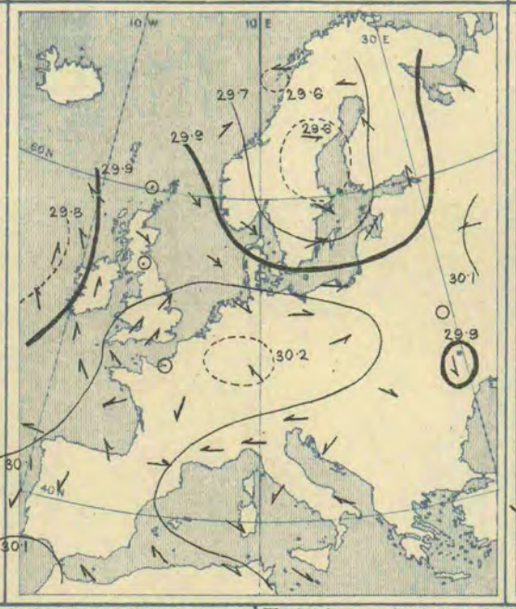


Weather fine over by far the greater part of Europe, but dull and rainy at several of our own western and northern stations, as well as over northern and central Russia. Fog reported on our south-west coasts. No important change occurring during day, but heavy rain falling in the south of Ireland (1·1 ins. at Valencia Island and 0·7 in. at Roche's Point).

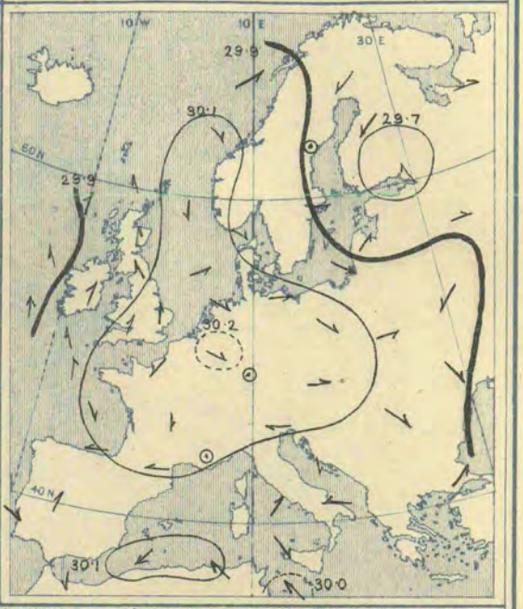
Temperature highest, 79° at Sfax and Malta, 78° at Brindisi, and 77° at Barcelona; above 70° at most of the Mediterranean and Adriatic stations, and above 60° in the south-east of England. Lowest, (1) 40° at Moscow, 41° at Archangel, 46° at Haparanda and Uleaborg, and 47° at St. Petersburg; (2) 49° at Sumburgh Head and Nairn, 50° at Aberdeen and Ardrossan, and 51° at Stornoway. Rising during day to between 70° and 75° in many parts of England, to 80° and upwards over southern Europe generally, and to 90° or more in the south of Italy.

Barometer and Wind.

8 a.m.



6 p.m.



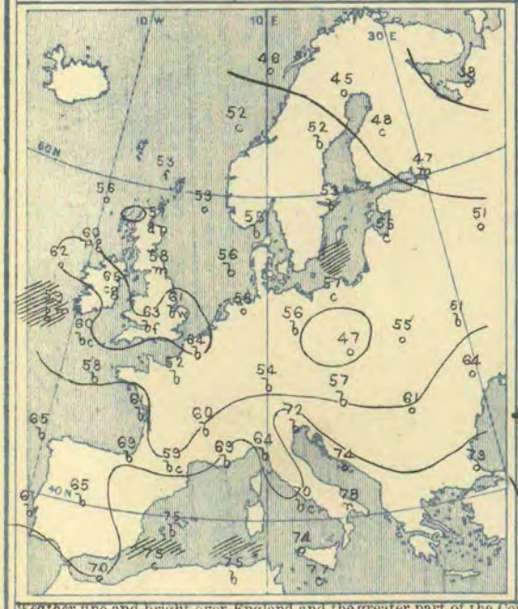
Wind light or moderate from the Southward over the greater part of the United Kingdom, but variable on our north-east coasts. Moderate to strong from the Westward over Denmark, the Baltic, and the south of Norway; light from the Eastward over the northern parts of Scandinavia and Russia. Variable over central Europe, but Easterly or North-Easterly over Spain and Italy; South-Easterly or Southerly in Algeria. No important change occurring later, but wind moderating in force over Denmark and the Baltic.

Barometer highest, 30·1 ins. and upwards in a large anticyclone extending from Spain and the western parts of the Mediterranean, across France and the south-east of England, to the Netherlands and Germany, and also in another system lying over central Russia. Lowest, 29·6 ins. and less in a depression lying over the southern parts of the Gulf of Bothnia, and also in another system over the north-west of Norway; 29·8 ins. and less in a disturbance lying to the westward of Ireland. Depression over Gulf of Bothnia subsequently travelling eastwards to the neighbourhood of St. Petersburg; disturbance off west of Ireland travelling away over Atlantic; barometer rising in all parts of the United Kingdom.

Wednesday, 9th September.

Temperature and Weather.

8 a.m.

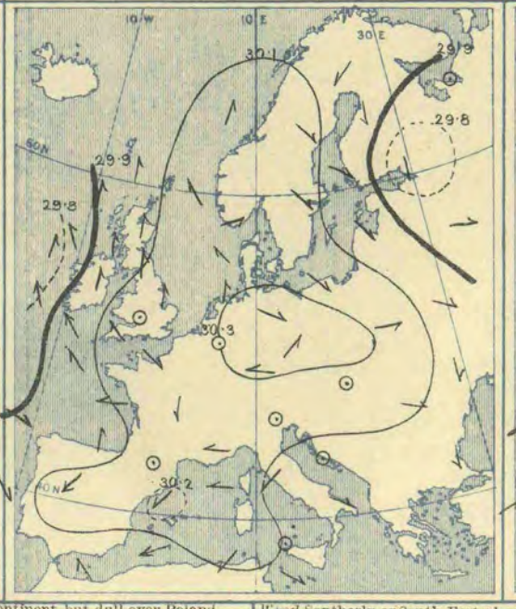


Weather fine and bright over England and the greater part of the Continent, but dull over Poland, central Russia, and the west of Norway; showery in Scotland, and rainy in Ireland. Further large quantities of rain in the south of Ireland during day, the largest amount of all being 1·0 in. at Valencia Island.

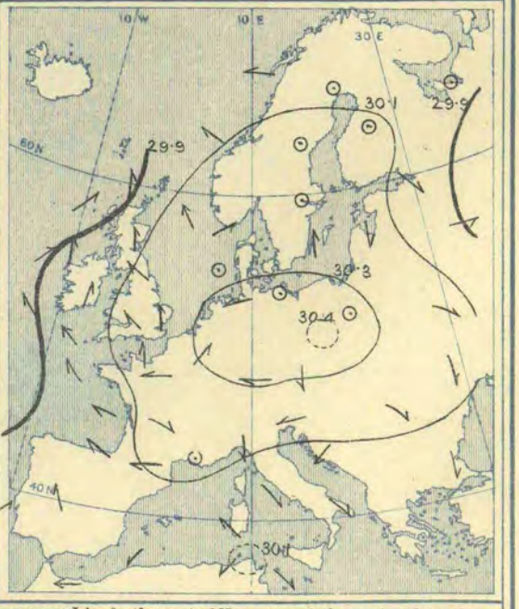
Temperature highest, 81° at Sfax, 78° at Brindisi, and 77° at Barcelona and Malta, above 70° at many of the Adriatic and Mediterranean stations, and above 60° at several of the English and Irish stations, as well as over central Scotland. Lowest, 38° at Archangel, 43° at Uleaborg, 45° at Haparanda, and 46° at Bodö; below 50° in Poland, and very little above that point over central France. Rising during day to between 75° and 80° over the inland parts of England; exceeding 80° in France and southern Europe generally, and exceeding 90° over the Peninsula and the south-west of France.

Barometer and Wind.

8 a.m.



6 p.m.



Wind Southerly or South-Easterly over our Islands, the west of Norway, and the west and north of France, light or moderate in force generally, but strong in the west and south of Ireland. Light from the North-Westward over Sweden, Russia, and the Baltic, as well as over southern Italy; Westerly over eastern Germany. Variable over the eastern and central parts of France, moderate to fresh from the North-Eastward over Algeria and central Spain. Subsequently veering to the South-Westward over the northern parts of the United Kingdom.

Barometer highest, 30·3 ins. and upwards, over Poland and the central parts of Germany; 30·1 ins. and upwards, in a large anticyclone covering all but the most eastern and western parts of Europe. Lowest, 29·8 ins. and less in a depression lying to the westward of our Islands, and also in another system lying over Russia, with its centre to the eastward of St. Petersburg. Western disturbance subsequently moving slowly northwards, Russian system travelling eastwards; no change of importance taking place in position of high pressure area.

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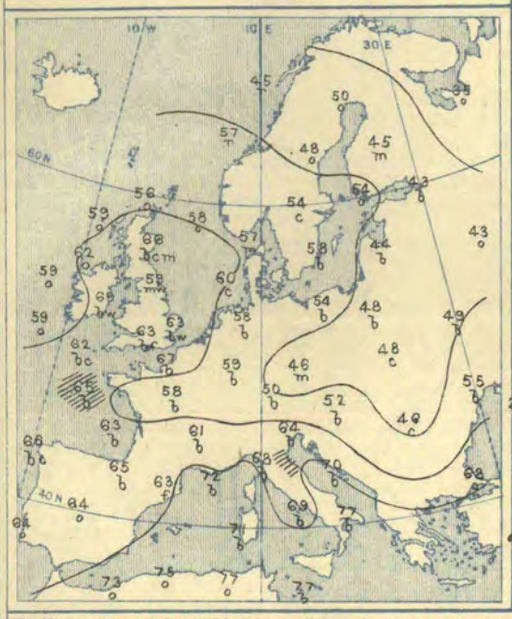
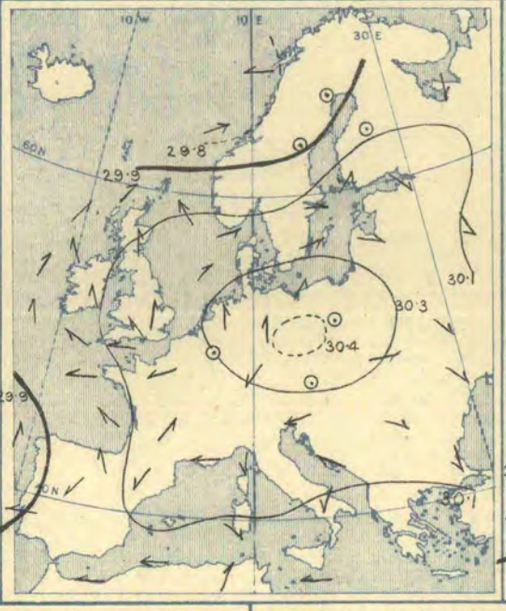
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 10th September.

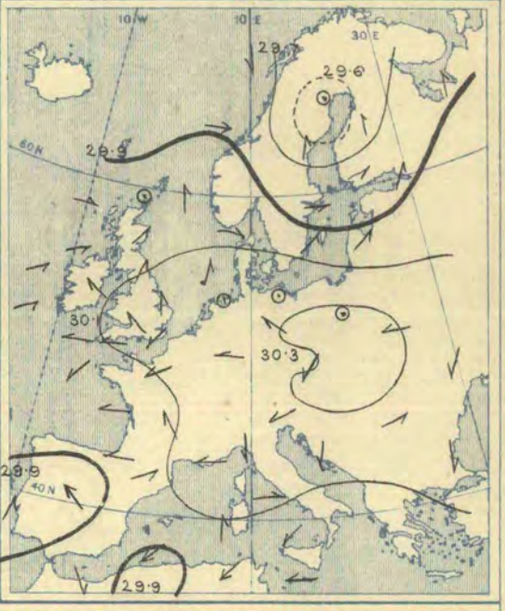
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright in all but the extreme north-western and northern parts of Europe, hazy or foggy in several parts of the United Kingdom; rainy in the west of Norway. No important change occurring during day, but rain falling in the Shetlands and Hebrides, as well as at some of the Russian stations.

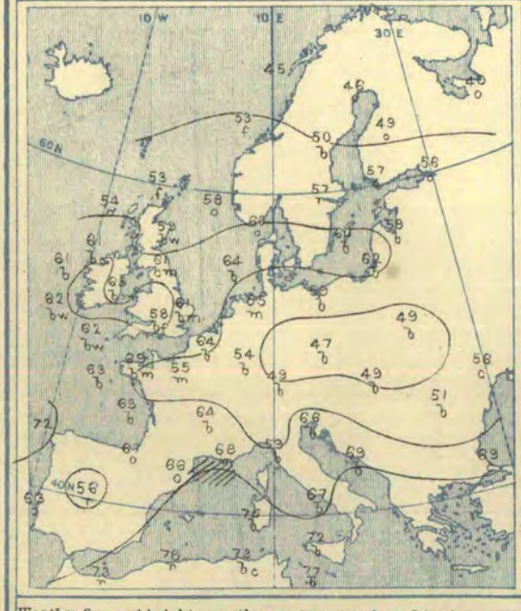
Temperature. Highest, 77° at Brindisi, Malta, and La Calle, and 75° at Algiers, Tunis, and Aumale; above 70° at most of the Adriatic and Mediterranean stations, and just reaching that point at Jersey; exceeding 60° in many parts of the United Kingdom. Lowest, 35° at Archangel, 43° at St. Petersburg and Moscow, 44° at Riga, and 45° at Bodö, Kuopio, and Helsingfors; below 50° at most of the Russian stations, as well as in eastern Germany and some parts of Austria. Rising during day to 80° and upwards over the inland parts of England and the greater part of France and southern Europe; highest reading in our Islands, 83° at Cambridge; highest Continental reading, 93° at Trieste.

Wind light from the South-Eastward over England, Ireland, France, and the Netherlands, and from the South-Westward over Scotland, Denmark, north Germany, and the Baltic; fresh from the Southward or South-Westward in the west and south of Norway. Light from the Northward in Italy, and from the North-Eastward or Eastward in Spain, the south of France, and eastern Algeria; variable or Southerly in central Algeria and Tunis. No important change occurring during day.

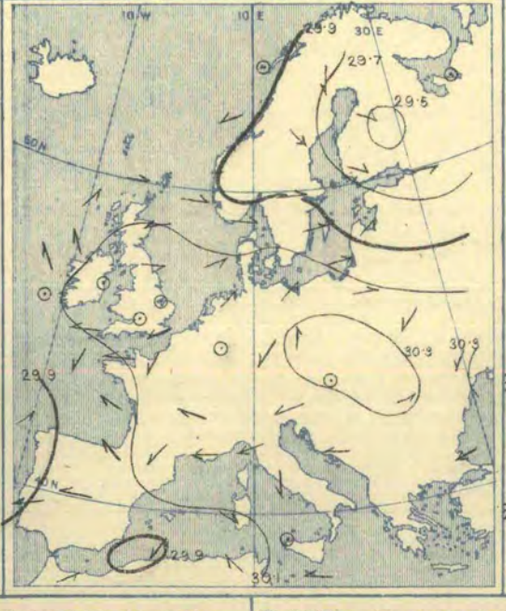
Barometer highest, 30·4 ins. and upwards over Silesia and the neighbouring parts of Poland and Austria; 30·1 ins. to 30·4 ins. in a large anticyclone covering the greater part of the Continent. Lowest, 29·8 ins. and less in a depression lying off the west of Norway, 29·9 ins. and less in another disturbance lying over and to the westward of Portugal. Former disturbance subsequently travelling eastwards to the Gulf of Bothnia; latter system spreading eastwards over Spain.

Friday, 11th September.

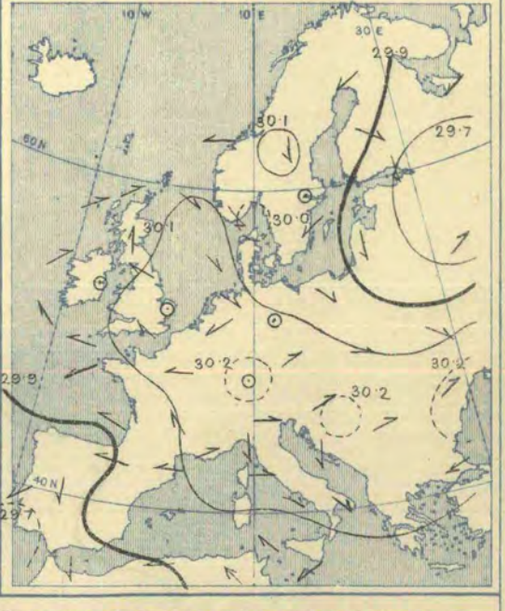
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fine and bright over the greater part of our Islands and the Continent, but with morning fogs and heavy dews at many of our own stations. Dull over the northern parts of Scandinavia and Russia, and also over Spain and Algeria; with rain at Madrid, Nemours, and Algiers. No rain falling during day in any part of western Europe, but a thunderstorm occurring at Wisby in evening.

Temperature highest, 81° at Sfax, 78° at Algiers, 77° at Malta, and 76° at Oran; above 70° over the central and southern parts of the Mediterranean generally, and above 60° in many parts of western Europe. Lowest, (1) 40° at Archangel, 44° at Uleaborg, 45° at Bodö, and 46° at Haparanda; (2) 46° at Cracow, 47° at Breslau, and 48° at Vienna, below 50° at most of the Austrian stations. Rising during day to between 80° and 86° over the inland parts of England, exceeding 80° at most of the French stations also, and reaching 88° at Brest. Highest European reading of all, 90° at Barcelona.

Wind light or moderate from the Eastward over Spain, France, and the south of England, calm or light and variable over the central parts of the United Kingdom; Westerly over Denmark, the Baltic, the south of Scandinavia, and the extreme north of Scotland. Light from the Northward in Italy, and from the North-Eastward in Algeria. Subsequently backing to the Westward in Italy. No important change occurring elsewhere.

Barometer highest, 30·3 ins. and upwards over eastern Austria, and also over the extreme south of Russia, 30·1 ins. and upwards in a large anticyclone covering the greater part of Europe. Lowest, 29·5 in a depression lying over Finland, 29·9 ins. and less in a shallow area lying over the western parts of the Iberian Peninsula. Depression subsequently travelling south-eastwards to central Russia. Spanish low pressure area spreading slowly north-eastwards, and barometer falling in most parts of western Europe.

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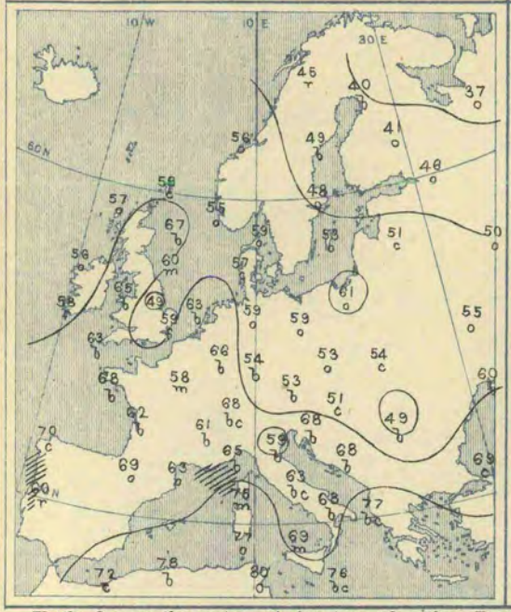
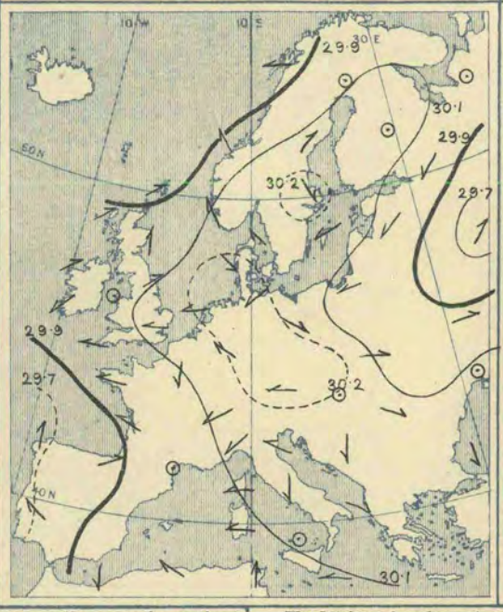
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 12th September.

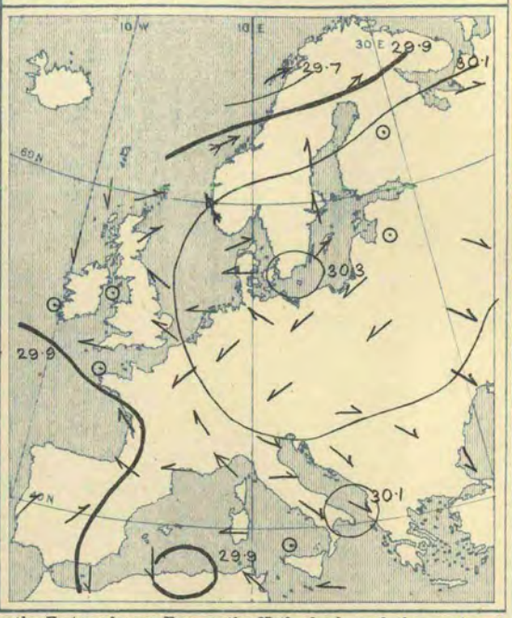
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the greater part of western and southern Europe, as well as over the northern parts of Sweden, but fog and heavy dew reported at many of our own stations. Dull in Norway, Russia, eastern Germany, Spain, and the extreme north-west of our Islands; with rain at Bodö and also at Lisbon. Heavy rain falling later at some of the Spanish stations, and a thunderstorm occurring at Perpignan.

Temperature highest, 82° at Sfax, 80° at La Calle and Tunis, and 78° at Algiers; above 70° at most of the Mediterranean stations, and also in the Channel Islands; above 65° on several parts of the British coasts. Lowest, (1) 37° at Archangel and Uleaborg, 40° at Haparanda, 41° at Kuopio, and 45° at Bodö; (2) 49° at Loughborough, and 53° at York. Rising during day to between 80° and 85° in most of the inland parts of Great Britain; exceeding the latter point in several parts of France and southern Europe, the highest reading of all being 88° at Brest and Clermont.

Wind light and moderate from the Eastward over France, the Netherlands, and the south and east of England; South-Easterly over the southern parts of Norway, Southerly or South-Westerly in Scotland. Light from the Northward or North-Eastward over Finland and the Baltic, and from the North-Westward or Westward over Denmark, eastern Germany, and the south of Russia. Variable in Italy; South-Easterly in Algeria. No important change occurring during day.

Barometer highest, 30·2 ins. and upwards over Germany, the Netherlands, and the south of Denmark, and also over central Sweden; 30·1 ins. and upwards in a large anticyclone covering a considerable portion of Europe. Lowest, 29·7 ins. and less in a well-marked depression over central Russia; 29·8 ins. and less in another system lying to the westward of Portugal; 29·9 ins. and less in a large shallow area lying to the northward of our Islands and the westward of Norway. Russian depression subsequently disappearing; Spanish disturbance spreading slowly north-eastwards towards France and our southern coasts.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇛⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

At the beginning of the week, two anticyclones were observed over Europe—one over France, and the other over northern Russia, the weather being fine in all the eastern, central, and southern countries. A depression was, however, lying to the northward of our Islands, so that moderate to fresh breezes from the Southward or South-Westward were reported over north-western Europe, with changeable showery weather. On the 6th and 7th, the depression travelled eastwards across Scandinavia to northern and central Russia, and the northern high-pressure system broke up. The southern anticyclone, however, increased both in size and intensity, until it covered nearly all the western and central parts of Europe, and a considerable improvement in the weather took place in the north-west, with abnormally high temperatures over England. At the close of the period, the anticyclone was becoming reduced in height, and was moving eastwards, while low pressure systems were beginning to approach our Islands from the south-westward. The weather was, therefore, becoming unsettled again in Ireland and the south-west of England.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 212.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	42·4	?	47	?	EASTBOURNE	60·2	?	67	?
OSWALDKIRK (Yorkshire)	52·9	?	58	?	TORQUAY	61·3*	?	68*	?
WORKSOP	50·7	+23·7	56	+26	ARLEY COTTAGE (County Cavan)	41·6	?	46	?
THURCASTON (Leicestershire)	62·8	+35·8	69	+38	GUERNSEY	73·0*	?	82*	?

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 37.] *Third Series.* WEEK ENDING SATURDAY, 19TH SEPTEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 218.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	75	41	59·4	49·3	54·1	3 above.	85	+22	0	− 1	1702	+194	621	+ 79
	1. SCOTLAND, EAST	77	43	62·1	50·1	55·8	4 above.	97	+21	0	− 1	1919	− 19	670	+101
	2. ENGLAND, N.E.	80	42	64·6	51·6	57·8	4 above.	111	+27	0	0	1980	− 83	593	+ 95
	3. ENGLAND, EAST	83	42	68·1	51·5	59·4	4 above.	122	+25	0	0	2290	−107	689	+128
	4. MIDLAND COUNTIES	83	42	67·2	50·9	58·7	4 above.	117	+15	0	0	2271	− 91	668	+115
	5. ENGLAND, SOUTH	83	43	65·8	53·5	59·3	3 above.	121	+15	0	0	2464	−118	565	+149
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	75	43	62·5	50·8	56·3	3 above.	100	+20	0	− 1	2091	+109	462	+ 45
	7. ENGLAND, N.W.	80	45	64·4	53·8	58·8	4 above.	118	+23	0	− 1	2201	+ 50	449	+ 35
	8. ENGLAND, S.W.	78	40	63·2	54·1	58·4	2 above.	115	+18	0	− 1	2300	− 82	434	+118
	9. IRELAND, NORTH	77	46	62·5	52·5	57·3	4 above.	107	+23	0	0	2188	+ 68	391	+ 29
	10. IRELAND, SOUTH	73	45	62·6	53·5	57·8	3 above.	111	+19	0	− 1	2408	+ 22	309	+ 31
	— CHANNEL ISLANDS	76	52	63·7	56·9	60·2	1 above.	127	+11	0	0	2633	− 8	162	+ 40

Rainfall.

	DISTRICTS. (See p. 218.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	7	14	3 more.	170	+ 3	34·2	+ 2·6
	1. SCOTLAND, EAST	5	6	1 less.	123	−15	18·1	− 3·7
	2. ENGLAND, N.E.	4	6	0 (average)	121	− 6	15·8	− 2·1
	3. ENGLAND, EAST	4	6	0 (average)	128	+ 4	17·0	− 0·7
	4. MIDLAND COUNTIES	4	6	1 less.	124	+ 2	18·2	− 1·6
	5. ENGLAND, SOUTH	5	7	1 more.	120	+ 2	19·0	+ 0·5
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	6	9	2 less.	133	−13	25·7	− 7·1
	7. ENGLAND, N.W.	5	11	2 more.	120	−13	22·0	− 0·9
	8. ENGLAND, S.W.	5	14	4 more.	127	− 9	25·6	− 0·8
	9. IRELAND, NORTH	6	4	4 less.	150	− 8	21·5	− 3·2
	10. IRELAND, SOUTH	4	3	5 less.	135	− 9	23·4	− 3·3
	— CHANNEL ISLANDS	5	11	4 more.	127	−16	20·6	− 0·4

Bright Sunshine.

	DISTRICTS. (See p. 218.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	19	+ 4	22	+ 5	977	+ 7	28	0
	1. SCOTLAND, EAST	27	+ 7	31	+ 9	1092	− 36	31	− 1
	2. ENGLAND, N.E.	18	− 8	20	− 6	1033	+ 3	30	0
	3. ENGLAND, EAST	25	− 5	29	− 3	1154	− 92	34	− 3
	4. MIDLAND COUNTIES	18	−12	21	−11	1106	− 7	32	0
	5. ENGLAND, SOUTH	20	−15	23	−16	1259	+ 50	37	+ 1
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	21	− 7	25	− 6	1159	+ 43	33	+ 1
	7. ENGLAND, N.W.	22	− 6	25	− 7	1062	− 42	31	− 1
	8. ENGLAND, S.W.	16	−19	19	−20	1321	+ 5	39	0
	9. IRELAND, NORTH	21	− 1	24	− 1	1067	+ 52	31	+ 2
	10. IRELAND, SOUTH	20	− 9	23	−10	1162	− 17	34	0
	— CHANNEL ISLANDS	19	−21	22	−25	1611	+ 71	47	+ 2

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather was fine and warm at the commencement of the period, but soon became much cooler, unsettled, and showery in all parts of the Kingdom.

Temperature has continued above the mean, the excess having ranged from 3° or 4° in most districts to 1° in the "Channel Islands." The highest of the maxima were recorded on the 13th, when the thermometer rose to 83° over central, southern, and eastern England, to 80° in "England N.E." and "N.W.," and to between 73° and 78° in the western and northern parts of the Kingdom. The lowest of the minima were registered on the 15th, and varied from 40° in "England S.W." and 43° in "England S." and "Scotland W." and "E.," to 46° in "Ireland N." and to 52° in the "Channel Islands." During the greater part of the period the minima were considerably above the mean for the time of year.

Rainfall has been rather more than the mean in "Scotland N." and all the western parts of England, as well as in "England S." and the "Channel Islands." In the north-east and east of England the fall has just equalled the mean, while in the remaining districts there has been a deficiency.

Bright Sunshine has been very little prevalent as a whole, but in the north and east of Scotland it has been rather in excess of the mean. The percentage of the possible duration was greater at the eastern stations and ranged from 31 in "Scotland E." and 29 in "England E." to 19 in "England S.W."

Barometer and Wind.—Soon after the commencement of the week a large "V" shaped depression passed over the Kingdom from the south-westward, and was followed on the 15th by small secondary disturbances which passed over England in an easterly direction. An anticyclone then spread somewhat over the southern parts of the Kingdom and France from the Atlantic, while depressions affected our more northern and north-western coasts. Towards the end of the period the anticyclone moved southwards, and some very shallow subsidiary systems began to pass directly over the Kingdom from the westward. South-Westerly to Westerly winds of moderate force were generally prevalent, but on the 18th they blew strongly in the eastern parts of the Channel.

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II.—DATA from which the SUMMARY on page 217 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	58	43	56·4	47·6	51·8	+ 1·5	69	0	6	1·65	+0·87	*	*	*	*
	Stornoway ⚓	62	45	58·7	48·6	55·4	+ 2·6	80	0	7	0·84	−0·13	28·6	+ 3·8	33	+ 5
	Wick ⚓	63	43	59·4	49·3	54·1	+ 2·7	85	0	6	0·64	+0·04	*	*	*	*
	Lairg ⚓	72	41	60·7	49·4	54·8	+ 3·8	90	0	7	0·68	−0·04	*	*	*	*
	Glencarron ⚓	75	46	59·8	49·2	54·3	+ 3·8	86	0	7	3·24	+1·64	*	*	*	*
	Fort Augustus ⚓	61	44	60·5	49·8	54·9	+ 2·6	90	0	6	0·59	−0·30	12·5	?	14	?
	Fort William ⚓	71	48	60·6	51·2	55·7	+ 3·0	96	0	7	1·88	+0·30	15·6	?	18	?
1. SCOTLAND, E.	Nairn ⚓	64	43	59·9	49·0	54·2	+ 1·6	85	0	7	0·47	−0·13	*	*	*	*
	Aberdeen ⚓	69	43	63·3	50·0	56·3	+ 3·6	100	0	5	1·31	+0·61	35·0	+ 8·3	40	+ 9
	Braemar ⚓	70	43	59·6	47·3	53·2	+ 4·0	78	0	4	0·34	−0·47	19·3†	? †	22†	?†
	Ochtertyre ⚓	75	43	63·7	50·7	56·9	+ 4·4	104	0	4	0·15	−0·70	*	*	*	*
	Leith ⚓	68	48	62·6	52·4	57·3	+ 2·9	107	0	4	0·23	−0·31	*	*	*	*
	Marchmont ⚓	77	43	63·4	50·9	56·9	+ 5·0	104	0	5	1·29	+0·51	27·0	?	31	?
2. ENGLAND, N.E.	Alnwick Castle	66	47	63·1	52·0	57·4	+ 4·9	108	0	5	1·02	+0·34	*	*	*	*
	Durham	77	42	65·4	49·2	56·9	+ 3·6	104	0	3	0·34	−0·23	18·0	− 6·5	21	− 7
	Shields	68	45	64·1	51·9	57·7	+ 3·9	110	0	3	0·66	+0·07	*	*	*	*
	Scarborough ⚓	68	45	64·2	51·7	57·7	+ 3·1	110	0	4	0·60	−0·05	*	*	*	*
	York	80	44	66·9	50·0	58·0	+ 3·4	112	0	6	0·56	−0·07	17·8	− 6·4	20	− 8
	Spurn Head ⚓	67	49	63·7	54·9	59·1	+ 3·0	120	0	3	0·28	−0·20	*	*	*	*
3. ENGLAND, E.	Hillington ⚓															
	Yarmouth ⚓	69	45	66·0	53·4	59·4	+ 3·0	122	0	4	0·58	−0·12	*	*	*	*
	Geldeston	73	43	69·0	52·2	60·2	+ 4·1	127	0	4	0·63	+0·03	31·0	− 3·5	36	− 3
	Cambridge	83	42	70·4	50·1	59·8	+ 3·7	125	0	3	0·56	+0·04	24·9	− 6·4	29	− 7
	Rothamsted	79	42	66·8	50·2	58·1	+ 3·2	113	0	5	0·57	−0·07	18·9	?	22	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	80	46	68·4	50·7	59·1	+ 4·2	120	0	3	0·33	−0·26	*	*	*	*
	Loughborough	82	43	69·6	51·1	59·9	+ 4·2	125	0	4	0·39	−0·25	*	*	*	*
	Stamford (Ketton Hall)	83	42	70·0	50·1	59·6	+ 4·1	123	0	4	0·46	?	*	*	*	*
	Cheadle ⚓	78	43	65·6	50·1	57·5	+ 4·2	109	0	5	0·38	−0·40	*	*	*	*
	Churchstoke ⚓	77	45	66·2	50·2	57·8	+ 4·5	111	0	5	1·16	+0·51	20·9	− 7·3	24	− 9
	Hereford ⚓	79	44	67·3	51·9	59·2	+ 4·1	120	0	5	0·58	−0·07	*	*	*	*
	Cirencester	? 75	42	? 64·3	51·0	? 57·3	?+ 2·9	?107	0	5	0·94	+0·19	13·0	−14·0	15	−17
	Oxford	80	45	66·3	52·1	58·9	+ 3·1	118	0	4	0·25	−0·37	16·3	−13·9	19	−17
5. ENGLAND, S.	London	83	43	68·0	52·6	59·9	+ 2·5	125	0	5	0·55	0·00	15·1†	−10·7†	17†	−13†
	Strathfield Turgiss ⚓	73	43	66·2	48·5	56·9	+ 1·1	104	0	5	0·63	+0·03	*	*	*	*
	Dungeness	72	44	66·0	54·7	60·1	+ 3·5	127	0	4	0·35	−0·27	*	*	*	*
	Hastings (St. Leonards)	74	46	65·1	54·5	59·6	+ 1·3	123	0	4	0·46	−0·19	24·6	−11·9	28	−14
	Southampton	77	44	66·7	53·1	59·6	+ 2·3	123	0	5	0·55	−0·16	16·6	−18·0	19	−20
	Hurst Castle	71	52	64·7	57·7	61·0	+ 3·3	133	0	5	0·62	−0·09	*	*	*	*
	Stowell ⚓	76	43	64·0	53·4	58·2	+ 3·2	113	0	5	1·78	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	75	43	62·9	49·2	55·7	+ 2·7	96	0	7	1·99	+0·39	*	*	*	*
	Glasgow	73	48	62·2	50·8	56·2	+ 3·8	99	0	7	0·50	−0·41	16·1	− 6·1	19	− 6
	Ardrossan	74	52	61·4	54·0	57·5	+ 3·3	1.9	0	5	0·68	−0·20	*	*	*	*
	Glenlee ⚓	75	44	63·5	48·6	55·7	+ 3·5	96	0	7	0·57	−0·63	*	*	*	*
	Douglas (Isle of Man)	70	45	62·3	51·2	56·5	+ 2·9	102	0	4	0·87	−0·02	26·2	− 5·5	30	− 6
7. ENGLAND, N.W.	Newton Reigny	77	45	63·5	49·4	56·1	+ 3·5	99	0	6	1·31	+0·53	24·5	− 4·3	28	− 5
	Stonyhurst	75	47	62·5	52·2	56·9	+ 3·1	104	0	5	1·55	+0·37	22·5	− 5·6	26	− 6
	Blackpool ⚓	80	52	66·9	55·7	61·0	+ 6·8	133	0	3	0·73	−0·17	23·0	− 5·7	26	− 6
	Manchester	79	46	65·4	52·4	58·6	+ 4·2	116	0	7	0·99	+0·08	*	*	*	*
	Liverpool Obsy. (Bidston)	77	50	64·0	55·6	59·6	+ 3·9	123	0	3	1·24	+0·44	*	*	*	*
	Llandudno ⚓	80	51	65·3	55·3	60·1	+ 3·8	127	0	4	0·82	+0·10	16·8	− 8·2	19	−10
	Holyhead	76	52	63·4	55·1	59·4	+ 3·1	122	0	4	0·91	+0·16	*	*	*	*
8. ENGLAND, S.W.	Llandovery	78	40	65·7	51·0	58·0	+ 3·0	112	0	7	1·72	+0·60	*	*	*	*
	Pembroke	66	55	61·3	57·0	59·0	+ 2·8	119	0	6	1·51	+0·66	16·4	−16·4	19	−19
	Arlington (N. Devon)	71	48	61·4	53·7	57·4	+ 2·6	108	0	6	2·56	+1·44	*	*	*	*
	Cullompton ⚓	74	44	66·2	52·6	59·1	+ 3·8	120	0	5	0·68	−0·14	15·9	−14·9	18	−18
	Falmouth	66	50	62·0	54·4	58·0	+ 1·0	112	0	4	1·03	−0·12	20·9	−12·3	24	−15
	Plymouth	71	48	63·1	54·7	58·7	+ 1·4	117	0	4	0·93	+0·03	9·6	−24·4	11	−29
	Prawle Point	70	49	62·4	55·4	58·7	+ 1·9	117	0	5	1·18	+0·58	*	*	*	*
9. IRELAND, N.	Malin Head	72	51	61·0	53·4	57·0	+ 3·8	105	0	7	0·77	?	*	*	*	*
	Londonderry	77	49	63·9	52·8	58·1	+ 4·4	1 3	0	7	0·61	−0·28	*	*	*	*
	Mullaghmore	70	52	61·6	54·4	57·8	+ 2·6	111	0	7	0·39	−0·81	*	*	*	*
	Belmullet	60	50	59·0	53·7	56·2	− 0·4	99	0	7	0·52	?	*	*	*	*
	Markree Castle	71	46	62·4	50·6	56·2	+ 3·4	99	0	6	0·12	−0·63	21·1	− 0·4	24	− 1
	Brookeborough	71	46	62·0	50·7	56·0	+ 4·0	98	0	4	0·27	−0·62	*	*	*	*
	Armagh	73	48	63·6	51·8	57·4	+ 4·3	108	0	5	0·11	−0·59	24·5	+ 0·6	28	0
	Donaghadee	66	52	64·1	54·1	58·9	+ 4·9	118	0	4	0·60	−0·10	*	*	*	*
	Edgeworthstown	73	48	65·1	51·3	57·9	+ 4·9	111	0	3	0·52	−0·23	*	*	*	*
10. IRELAND, S.	Dublin	68	52	63·9	54·8	59·1	+ 4·1	120	0	3	0·76	+0·21	23·0	− 6·8	26	− 8
	Parsonstown	73	49	63·0	53·3	57·9	+ 4·1	111	0	4	0·11	−0·63	22·6	− 4·4	26	− 5
	Kilkenny	67	51	63·0	52·7	57·6	+ 2·7	109	0	5	0·22	−0·48	*	*	*	*
	Waterford	65	48	63·6	53·0	58·0	+ 2·1	112	0	3	0·40	−0·41	*	*	*	*
	Roche's Point	67	51	61·9	53·6	57·6	+ 1·6	109	0	3	0·17	−0·78	*	*	*	*
	Valencia	64	51	61·1	54·1	57·4	+ 1·2	108	0	5	0·43	−0·62	13·5	−14·5	16	−17
	Killarney	70	45	62·8	52·9	57·6	+ 2·3	109	0	4	0·28	?	*	*	*	*
	Foynes	67	49	61·6	53·3	57·3	+ 2·5	107	0	4	0·22	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	66	52	61·7	55·7	58·6	+ 0·6	116	0	4	1·80	+0·99	*	*	*	*
	Jersey	76	53	65·6	58·1	61·7	+ 1·9	138	0	5	0·45	−0·26	19·0	−21·0	22	−25

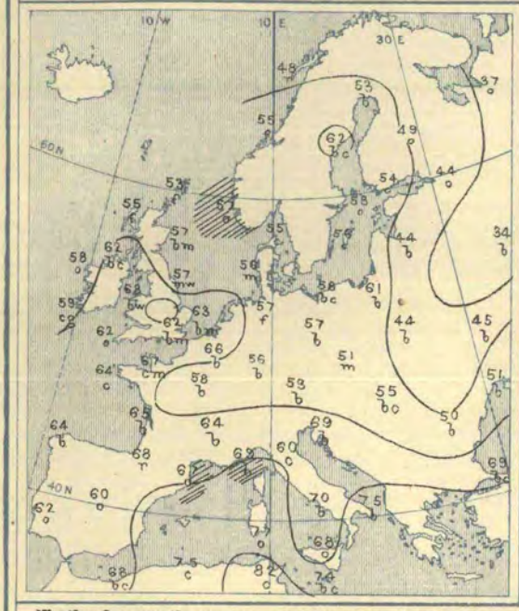
Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

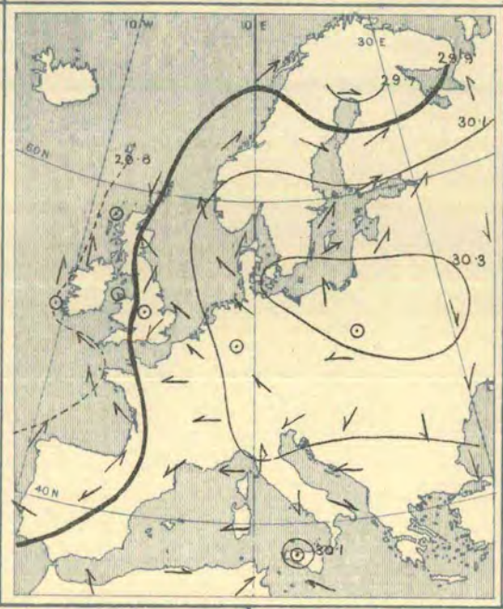
* An asterisk is inserted in all places for which the information is not usually received.

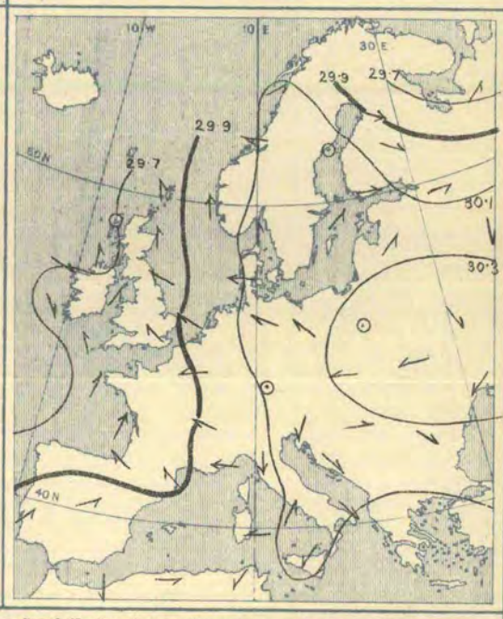
† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 13th September.

Temperature and Weather.	Barometer and Wind.	
8 a.m.	8 a.m.	6 p.m.







Weather fine over the greater part of Europe, but fogs and heavy dews reported at many of our own stations. Dull over northern Russia and the south of Scandinavia; rainy at Bodö and also at Biarritz; slight rain falling in the south-west of England. Remaining fine over the eastern parts of our Islands all day, but rain falling in the west; thunderstorms experienced at night in the south-west of England and over France, as well as in the Hebrides. Halo in London at night; rain at Madrid.

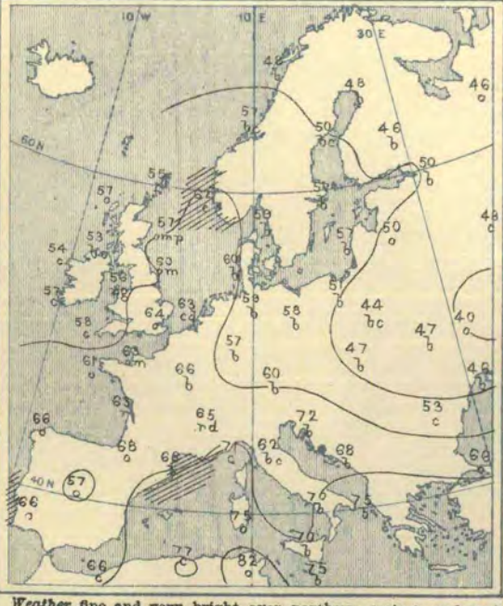
Temperature highest, 82° at La Calle and Sfax, 81° at Tunis, and 77° at Cagliari; above 70° at most of the Mediterranean stations, and above 65° on some parts of the English coasts. Lowest, (1) 34° at Moscow, 37° at Archangel, and 44° at St. Petersburg, Riga, and Warsaw; (2) 51° at Loughborough, 53° at Sumburgh Head and Wick, and 54° at Nairn. Rising later to 80° or more at several of the English and French stations, the highest readings in our Islands being 83° in London and at Cambridge. Maxima of nearly 90° in some parts of Italy and Spain, and exceeding 90° over Algeria.

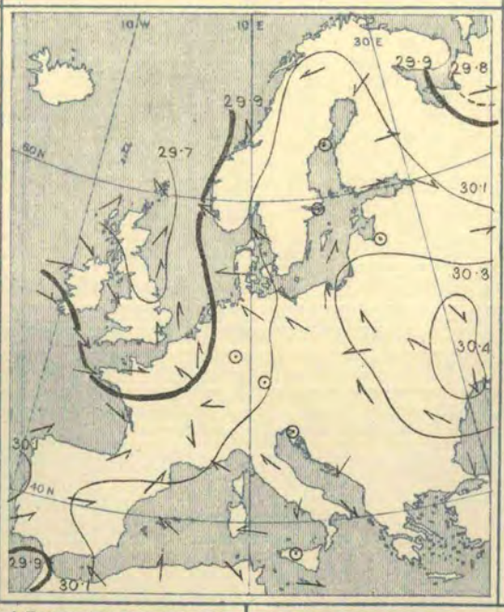
Wind light from the Eastward or South-Eastward over the greater part of our Islands, France, the Netherlands, and western Germany, but calm at many of the Scotch stations. Moderate to strong from the Westward or South-Westward over Scandinavia and northern Russia, light from the Northward over Austria, the south of Russia, and central Italy; North-Easterly in Spain, variable in Algeria. Subsequently veering to the South-Westward in the west of France, and shifting to the North-Westward in the west of Ireland; very little change elsewhere.

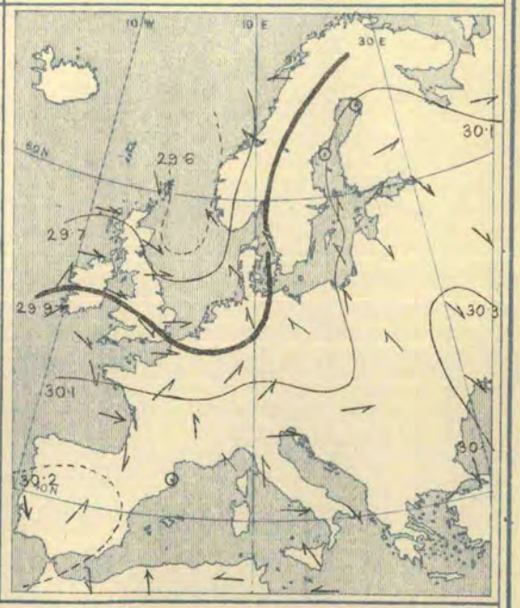
Barometer highest, 30·1 ins. and upwards in a large anticyclone covering the whole of central and eastern, and a considerable part of northern Europe; 30·3 ins. and upwards over western Russia and the southern parts of the Baltic. Lowest, 29·7 ins. in a depression lying over Lapland, 29·8 ins. and less in a large area lying to the westward and south-westward of our Islands. Barometer falling over western Europe throughout day, and low pressure systems beginning to appear over our western coasts.

Monday, 14th September.

Temperature and Weather.	Barometer and Wind.	
8 a.m.	8 a.m.	6 p.m.







Weather fine and very bright over northern, eastern, and central Europe, but unsettled and showery over the British Islands, and the north and west of France and the Iberian Peninsula, though temporarily clear at the Irish stations. Showers over the United Kingdom and France later, and slight thunderstorms in a few places; much rain in the south of Norway.

Temperature risen over France, western Germany and some parts of England; fallen decidedly over the western portions of the British Islands. Morning readings still exceeding 70° over the greater part of the Mediterranean, and exceeding 60° over France, the southern and eastern parts of the British Islands, and various shores of the North Sea. Lowest, (1) 40° to 46° over southern and western Russia and Poland; (2) 46° to 48° over northern Russia and Finland; (3) 53° to 55° over the greater part of Ireland. Fall of temperature extending from Ireland to England later; night cold and clear. Continental and Algerian maxima much the same as of late.

Wind South-Easterly to Easterly on the eastern shores of the North Sea, very variable and anticyclonic over Russia, Germany, and France; Southerly to South-Westerly over England, North-Westerly over Ireland and the Irish Channel, Westerly over the Bay of Biscay. The North-Westerly wind spreading eastwards over England later, but "backing" in Ireland. No decided change elsewhere.

Barometer highest, 30·4 ins. and more, to 30·2 ins., over the southern and western parts of Russia, and 30·1 ins. to 30·0 ins. over the Spanish Peninsula and adjacent parts of Atlantic. Lowest, 29·7 ins. and less in a "V" shaped depression over the northern half of Great Britain, and 29·9 ins. and less near the mouth of the Straits of Gibraltar. Rising all over western Europe later, but falling over Scandinavia, as the British depression moved north-eastward; high-pressure area over Russia giving way.

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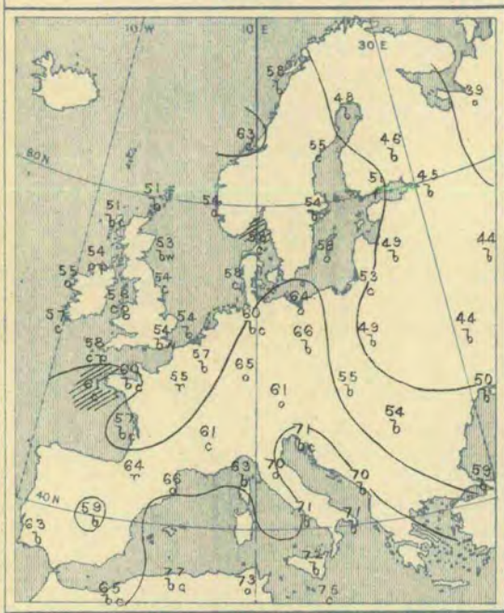
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 15th September.

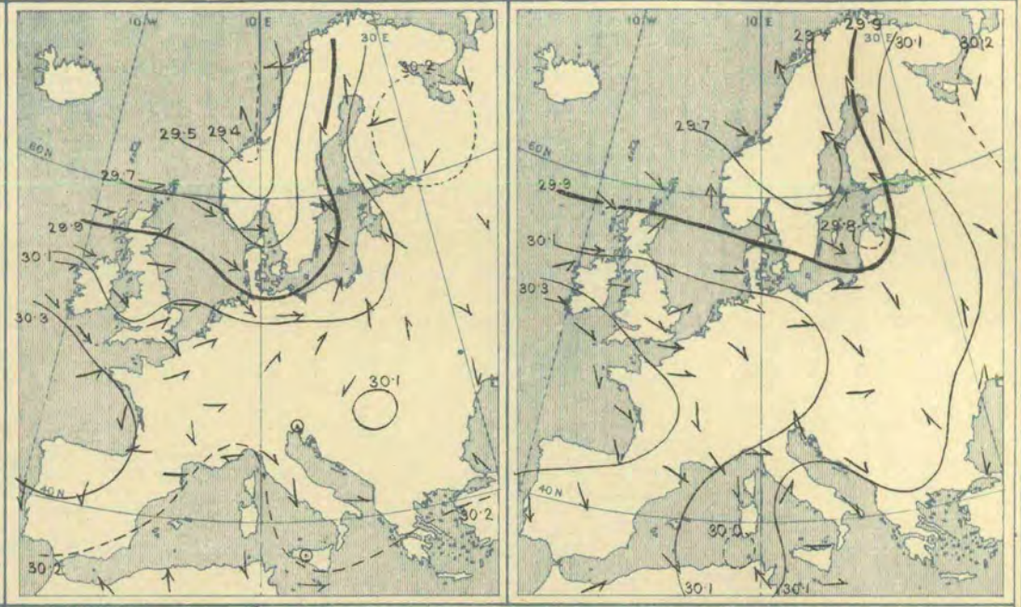
Temperature and Weather. 8 a.m.



Weather in morning fine and bright over Finland, Russia, south-eastern and central Europe, as well as over the Mediterranean, Spain, and some parts of the British Islands. Cloudy and unsettled over the Baltic, Scandinavia, the North Sea, and some parts of England, with rain in places. Rain later over the greater part of northern and central Europe, and several parts of the British Islands, but amounts small at our own stations. Night clear over England.

Temperature fallen generally over western Europe. Morning readings higher than 70° over Italy and the other Mediterranean districts only, exceeding 60° on the Spanish coasts and in the west of France, in Germany and at Christiansund; below 60° over the British Islands and North Sea. Lowest, 39° at Archangel, 42° at Uleaborg, 44° at Moscow, Kiev, and Nicolaieff. Not exceeding 66° at any of the British or Irish stations, but touching 70° at Berlin and Paris, exceeding that value in the south of France, almost reaching 90° over south of Italy, and exceeding 100° in some parts of Algeria.

Barometer and Wind. 8 a.m. and 6 p.m.

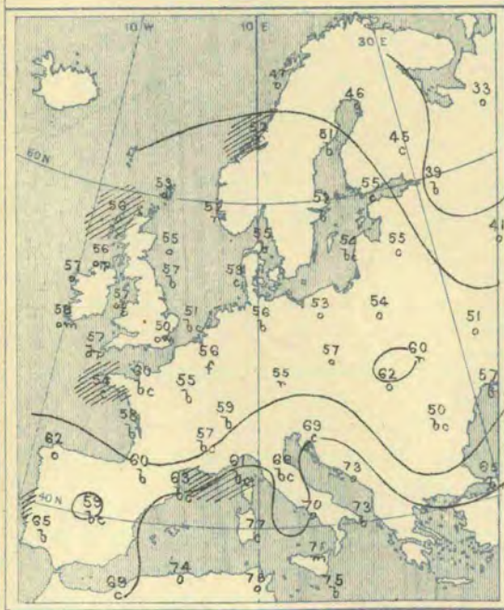


Wind variable from the Westward (South-West to North-West) over the United Kingdom and North Sea, light to fresh in force; Westerly and South-Westerly over Germany, Southerly to South-Easterly over the Baltic and Scandinavia. Very light and variable over southern and south-eastern Europe. Becoming Westerly to North-Westerly over England later, and increasing from South-East over the Gulfs of Finland and Bothnia.

Barometer highest, 30·3 ins. and more to 30·2 ins. over the Bay of Biscay, Spain and France, and 30·2 ins. and more over southern Russia and Finland. Lowest, 29·4 ins and less in a "V" shaped depression over Norway, and below 30·1 ins. over Hungary. Rising throughout western Europe all day; northern depression moving north-eastwards, and developing a well-formed secondary over the Baltic Provinces.

Wednesday, 16th September.

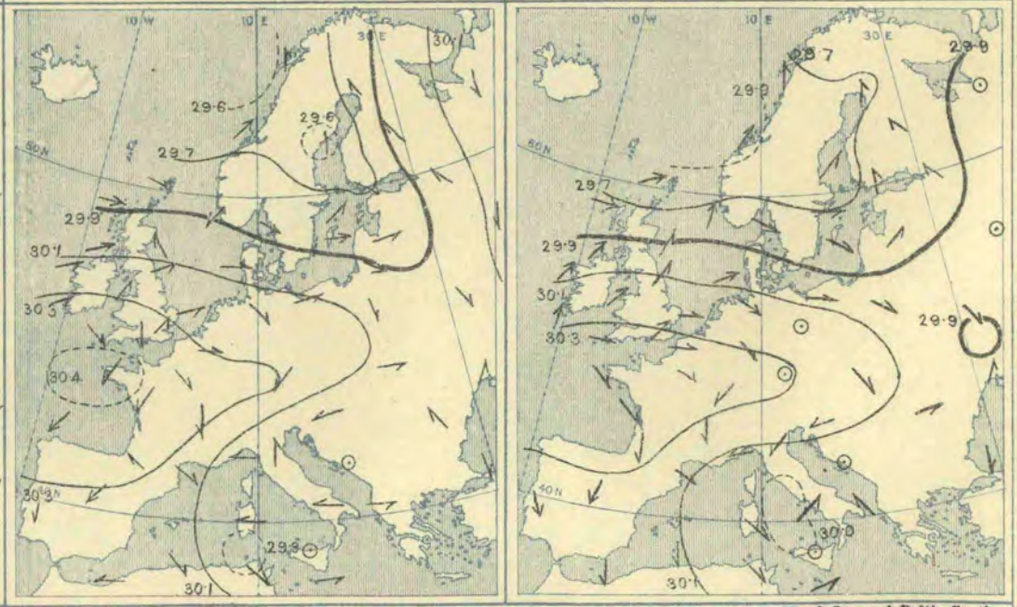
Temperature and Weather. 8 a.m.



Weather in morning fine and bright over Spain, the greater part of France, the Netherlands, north Germany, Denmark, and the southern half of Sweden; cloudy or overcast elsewhere, including the majority of the Algerian and Mediterranean stations; showers falling in several parts of Norway and the British Islands, and in some parts of Hungary. A little rain later at the Irish and Scotch stations, and a considerable fall in the Shetlands, Norway, Sweden, and on the eastern shores of the Baltic, but none over the greater part of England, Germany, and France. Heavy fall over central Italy.

Temperature. Highest morning readings 70° to 79° at most of the Mediterranean and Adriatic stations, much lower elsewhere. Below 60° over France, the United Kingdom, the North Sea, and Baltic, and lowest of all, 33° at Archangel, 39° at St. Petersburg, 41° at Moscow, 45° at Kuopio, and 46° at Kharkov and Haparanda. Not reaching 65° in any part of England later, but rising to between 63° and 80° over France, to 80° and more over the Peninsula and Italy, to 90° and more in Sicily and over central Algeria.

Barometer and Wind. 8 a.m. and 6 p.m.



Wind variable from the Westward over the United Kingdom, the North Sea, and Baltic, South-Easterly over Finland and Lapland; variable over Russia, and mainly North-Easterly over southern Europe. Very variable over the Mediterranean, but chiefly North-Westerly at the Algerian stations. Backing to the South-Westward on our western coasts later and freshening considerably; becoming strong from the Westward in the Shetlands and Hebrides, and on the eastern shores of the North Sea. Cyclonic circulation of fresh winds forming over Mediterranean.

Barometer highest, 30·4 ins. and more to 30·2 ins. in an anticyclone spreading in from the Atlantic over western Europe; 30·1 ins. and more to 30·0 ins. over Russia. Lowest, 29·7 ins. and less in a large depression off the west of Norway, and in a secondary disturbance near Hernösand; 30·0 ins. and less over Poland, Hungary, and western Russia, and also in a small depression lying between Sardinia and the Tunisian coast. Falling somewhat over the British Islands and north-western Europe during the day as a new low-pressure area approached the north of Europe from the Atlantic; falling also over Italy and south-eastern Europe.

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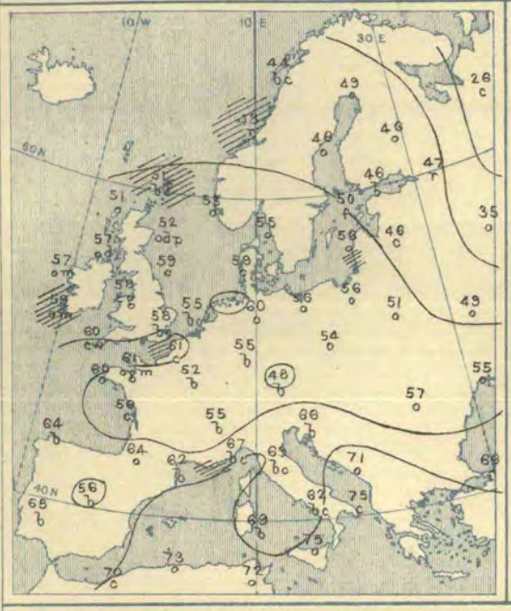
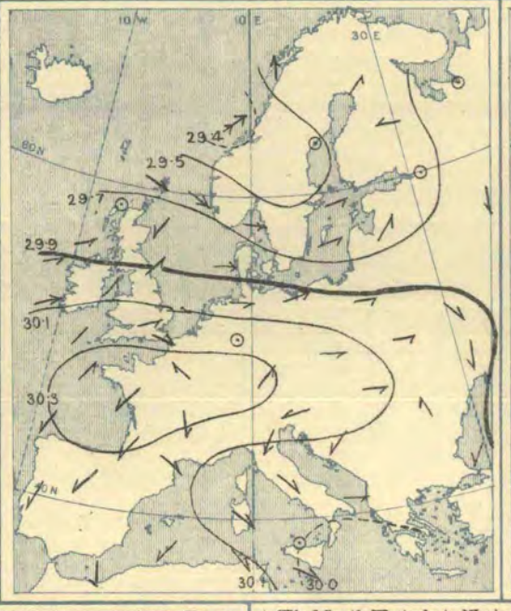
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 17th September.

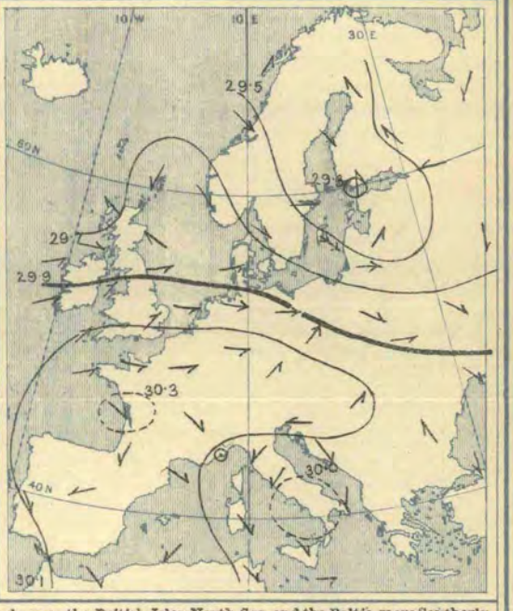
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the greater part of the Mediterranean, Spain, France, and western Germany, and also in some parts of England; cloudy, more or less, elsewhere, with rain in various parts of Ireland, Scotland, and the Baltic Provinces. Rain falling during some portion of day over the greater part of the United Kingdom, North Sea, Scandinavia, and north Germany; general condition over western Europe becoming less fair than of late. Heavy rain at Brindisi.

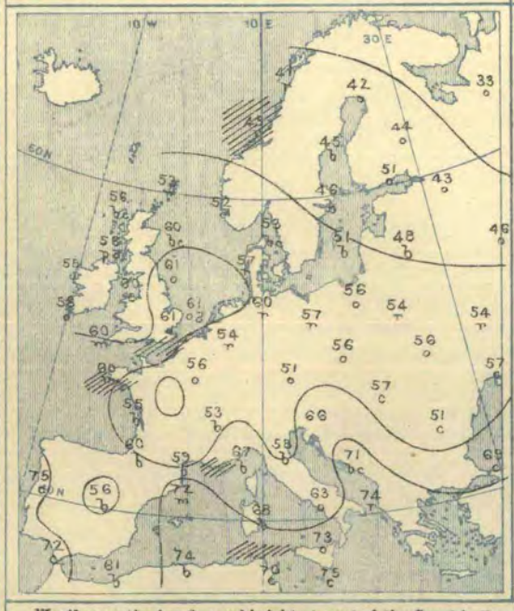
Temperature remaining above 70° (for 8 a.m.) at most of the Mediterranean stations, much lower elsewhere; below 60° over the greater part of France, the British Islands, and central Europe, and below 50° over northern Europe. Lowest of all, 26° at Archangel, 35° at Moscow, 42° at Helsingfors, 44° at Bodö, Hernösand, and Riga. Rising to between 60° and 68° over the British Islands, Germany, and the northern half of France later, to 79° at Nice, to 84° at Lisbon, 88° at Palermo and to 104° at Biskra (Algeria).

Wind South-Westerly to Westerly over the British Isles, North Sea, and the Baltic, more Southerly over the northern half of Norway, and blowing a gale at Christiansund; variable and anticyclonic over the Bay of Biscay and France, and chiefly North-Easterly over southern Europe, Northerly in Algeria; blowing strongly from North-East in north of Italy. Backing somewhat over the United Kingdom, and freshening a little in force; North-Easterly wind in Italy falling light.

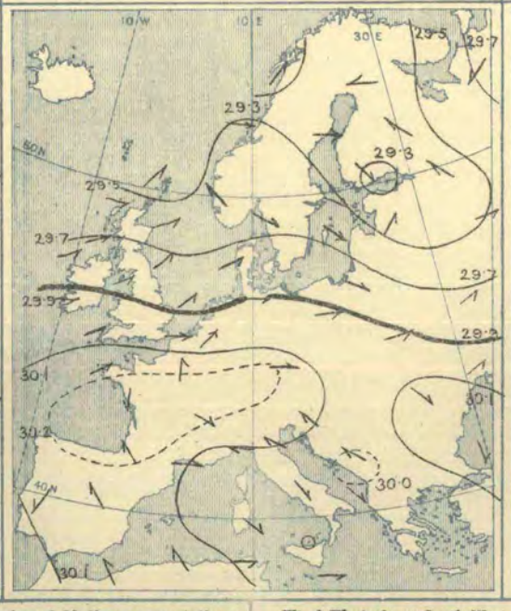
Barometer highest, 30·3 ins. and more to 30·1 ins. in an anticyclone covering the greater part of western and central Europe; exceeding 29·9 ins. at Archangel. Lowest, 29·4 ins. and less in a depression near Christiansund, and below 29·6 ins. in a secondary "hollow" extending thence over the whole of Scandinavia and the Gulf of Bothnia; below 29·9 ins. over southern Russia and the Crimea, and below 30·0 ins. over Sicily, south of Italy, and neighbouring parts of Mediterranean. Falling in our Islands and France later, rising in Norway. Anticyclone over France decreasing in intensity.

Friday, 18th September.

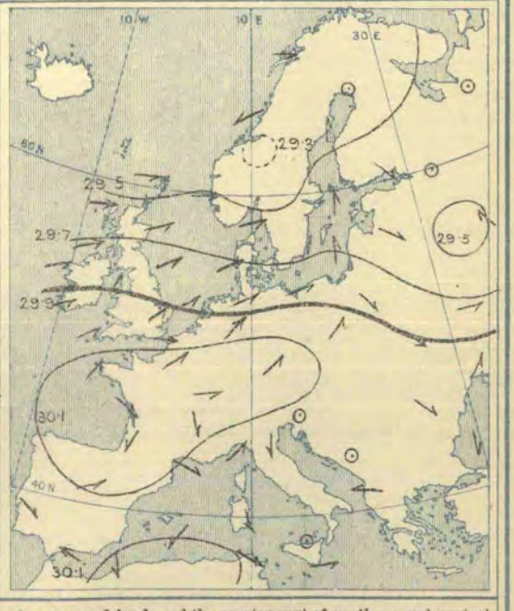
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather continuing fine and bright at most of the Spanish, French, and Mediterranean stations; temporarily fine over the Baltic; cloudy or overcast and unsettled elsewhere. Rain falling in many parts of the United Kingdom, Scandinavia, and Russia; a good deal of haze or fog prevailing in the English Channel. Rain later over Great Britain, the north of France, Germany, the eastern shores of the North Sea, and some parts of the Baltic coasts; weather fine in Ireland; air close and oppressive over the United Kingdom generally.

Temperature in morning still exceeding 70° at several of the most southern stations, much lower elsewhere. Below 60° over the greater part of the British Isles, central Europe, and the North Sea, and lowest of all, 33° at Archangel, 41° at Bodö and Ulcaborg, 43° at St. Petersburg, and 45° at Hernösand and Christiansund. Rising to 75° and upwards during day over central England, but remaining below 70° in all other parts of the United Kingdom and Germany, and below 60° at some of our north-western stations. Exceeding 80° in the extreme south of France, touching 88° at Palermo, and 90° over central Algeria.

Wind Westerly or South-Westerly over our Islands and the greater part of northern and central Europe, Easterly or South-Easterly over northern Russia, and light or moderate in force generally; strong in the eastern parts of the Channel, however, as well as at some of the Scandinavian stations. Mainly Easterly to Northerly over the Mediterranean and the Spanish Peninsula, and very variable over central France. No important change in our Islands later, but falling light over northern Europe.

Barometer highest, (1) 30·2 ins. and more to 30·1 ins. over western Germany, the whole of France, the Bay of Biscay, Spain, and Algeria; (2) exceeding 30·1 ins. over Bulgaria and the Black Sea; (3) exceeding 29·7 ins. over the north-east of Russia. Lowest, 29·3 ins. and less in a depression over the Gulf of Finland, and below 29·4 ins. in another disturbance to the north-westward of the Shetland Isles. Former disturbance advancing over Russia and filling up. Barometer unsteady over our Islands later, and falling in Norway, as the depression last named moved eastwards.

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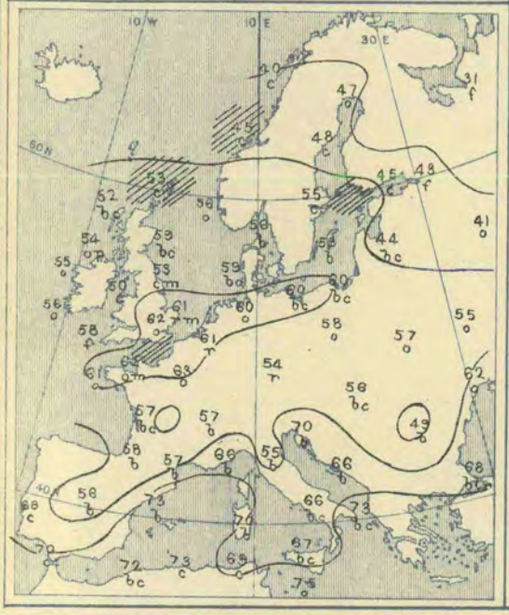
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 19th September.

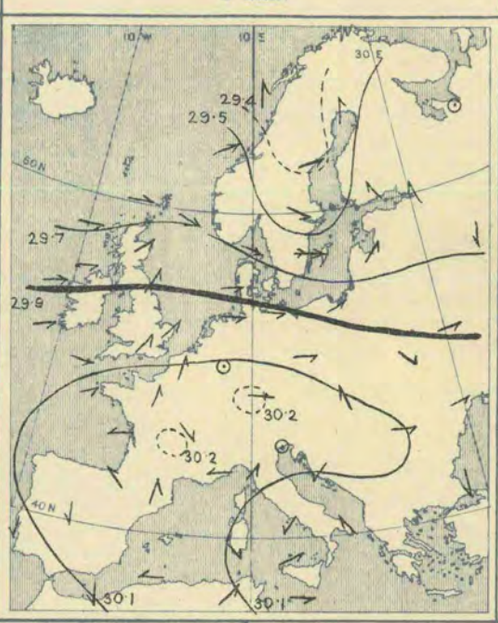
Temperature and Weather.

8 a.m.

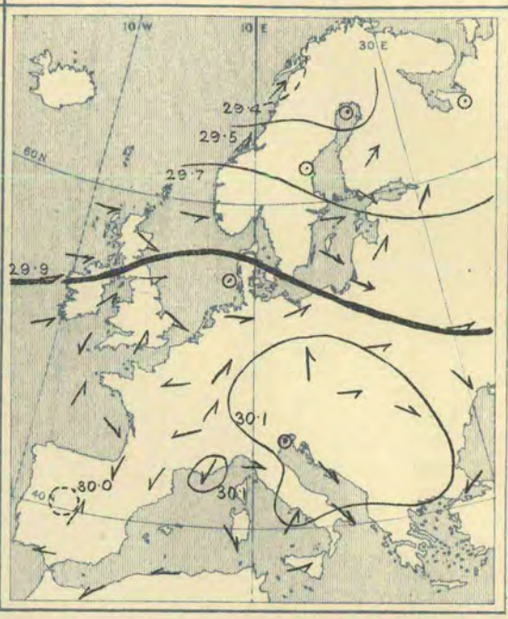


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning continuing fine and bright over the southern half of Europe and the Mediterranean; cloudy and unsettled over the northern half, with fog in several places, rain in others. Air close and oppressive over the United Kingdom. Showers in many of the northern regions later, and heavy falls of rain over the extreme south-west of England and in Wales.

Temperature, at 8 a.m., exceeding 70° at many of the Mediterranean stations, and exceeding 60° in many parts of France and England; lower elsewhere. Lowest, 31° at Archangel, 38° at Uleaborg, 40° at Bodö, 41° at Moscow, and 43° at St. Petersburg. Rising to between 60° and 66° over England later, to 70° and more in many parts of France, to 80° and more over Italy, and to 90° and more over Algeria. Falling fast over Ireland at night.

Wind very light, variable, and anticyclonic over Spain, France, Germany, and the Mediterranean; mainly Westerly, light to moderate, over the more northern countries, but Southerly over the northern half of Russia; a Westerly gale *reported* at Wisby. Shifting to the North-Westward over Ireland and to South or South-East at the English stations later, but not blowing hard; veering South-Westwards over Finland.

Barometer highest, 30·2 ins. and more to 30·0 ins. in a large anticyclone covering central, western, and southern Europe, and exceeding 30·1 ins. over the Bay of Biscay and Spain. Lowest, 29·4 ins. and less in a "V"-shaped depression over Lapland and the north of Sweden. New local depression forming at mouth of English Channel later, travelling north-eastwards over England, and increasing both in size and intensity; northerly depression moving northwards to the Arctic Sea.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟿ = a heavy gale; ⟿ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The fine summer-like weather, so prevalent over western Europe during last week, terminated abruptly as the present week came on. The anticyclone which had been covering France and central Europe moved slowly to the northward, and on Sunday primary disturbances of little intensity advanced northwards along our Atlantic coasts, while shallow secondary systems appeared over the Bay of Biscay and France, and moved northwards towards England. These systems all underwent great modification during the ensuing 24 hours, and on Monday morning appeared as a single complex disturbance covering the northern parts of our area, and advancing north-eastwards towards Scandinavia. A new anticyclone then came over the southern parts of our area from the Atlantic, but as it soon drifted southwards and was accompanied by shallow local depressions on its northern side, the weather over the United Kingdom did not settle, and showers occurred daily. The south-eastern, central, and southern parts of Europe were much less disturbed.

At the close of the week a small depression had been developed near Scilly, and was advancing north-eastwards over England, increasing, in the mean time, both in size and depth, and causing very rainy weather over the extreme western parts of England and Wales.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 218.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	26·1	?	30	?	TORQUAY	17·9*	?	21*	?
OSWALDKIRK (Yorkshire)	17·8	?	20	?	NEWQUAY	14·3	?	16	?
WORKSOP	19·1	− 5·9	22	− 7	ARLEY COTTAGE (County Cavan)	18·6	?	21	?
THURCASTON (Leicestershire)	22·6	− 1·9	26	− 3	GUERNSEY	19·3*	?	22*	?
EASTBOURNE	23·6	?	27	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

...d & Co.'s Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
By whom Subscriptions, payable in advance, can be received.
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VOL. VIII. No. 38.] *Third Series.* WEEK ENDING SATURDAY, 26TH SEPTEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid.* £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881–90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 224.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH -	62	30	55·8	44·6	49·9	0 (average)	55	− 2	0	− 2	1757	+186	621	+ 79
1. SCOTLAND, EAST -	64	31	56·0	44·4	50·0	1 below.	56	−12	0	− 2	1975	− 38	670	+100
2. ENGLAND, N.E. - -	68	43	58·4	48·3	53·1	0 (average)	78	+ 3	0	− 1	2358	− 88	593	+ 95
3. ENGLAND, EAST -	69	39	62·4	50·0	55·9	2 above.	97	+ 9	0	− 1	2388*	−109	689	+128
4. MIDLAND COUNTIES	68	37	60·4	47·3	53·5	0 (average)	81	− 3	0	− 2	2352	−102	668	+114
5. ENGLAND, SOUTH -	69	41	62·5	50·6	56·2	1 above.	99	+ 6	0	− 1	2563	−125	565	+149
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST -	63	31	57·2	46·5	51·6	0 (average)	67	− 5	0	− 3	2158	+ 97	462	+ 45
7. ENGLAND, N.W. -	65	36	58·6	48·3	53·2	0 (average)	78	0	0	− 2	2279	+ 38	449	+ 35
8. ENGLAND, S.W. -	67	41	60·5	49·9	54·9	0 (average)	90	+ 1	0	− 1	2390	− 92	434	+118
9. IRELAND, NORTH -	65	39	59·1	46·9	52·7	0 (average)	75	− 6	0	− 1	2263	+ 61	391	+ 29
10. IRELAND, SOUTH -	67	39	60·5	47·8	53·8	0 (average)	83	− 1	0	− 1	2491	+ 15	309	+ 31
— CHANNEL ISLANDS -	68	41	61·2	52·3	56·5	1 below.	102	− 7	0	0	2735	− 24	162	+ 40

Rainfall.

DISTRICTS. (See p. 224.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH -	5	15	5 more.	175	+ 4	35·7	+ 3·1
1. SCOTLAND, EAST -	5	27	20 more.	128	−13	20·8	− 1·7
2. ENGLAND, N.E. - -	5	8	2 more.	126	− 4	16·6	− 1·9
3. ENGLAND, EAST -	4	4	2 less.	132	+ 5	17·4	− 0·9
4. MIDLAND COUNTIES-	5	6	1 less.	129	+ 4	18·8	− 1·7
5. ENGLAND, SOUTH -	5	4	3 less.	125	+ 4	19·4	+ 0·3
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST -	5	19	8 more.	138	−11	27·6	− 6·3
7. ENGLAND, N.W. - -	5	12	3 more.	125	−11	23·2	− 0·6
8. ENGLAND, S.W. - -	5	7	2 less.	132	− 7	26·3	− 1·1
9. IRELAND, NORTH -	5	8	1 less.	155	− 6	22·3	− 3·2
10. IRELAND, SOUTH -	4	9	1 more.	139	− 8	24·3	− 3·2
— CHANNEL ISLANDS -	5	7	1 less.	132	−15	21·3	− 0·5

Bright Sunshine.

DISTRICTS. (See p. 224.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH -	17	− 5	20	− 5	994	+ 2	28	0
1. SCOTLAND, EAST -	16	− 6	19	− 7	1108	− 46	31	− 1
2. ENGLAND, N.E. - -	17	− 7	20	− 5	1050	− 5	30	0
3. ENGLAND, EAST -	20	− 9	24	−10	1174	−107	33	− 3
4. MIDLAND COUNTIES-	19	− 8	23	− 7	1125	− 18	32	− 1
5. ENGLAND, SOUTH -	21	−10	25	−10	1280	+ 36	36	0
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST -	20	− 6	24	− 7	1179	+ 37	33	+ 1
7. ENGLAND, N.W. - -	19	− 6	20	−10	1081	− 53	30	− 2
8. ENGLAND, S.W. - -	26	− 6	31	− 4	1317	− 4	38	− 1
9. IRELAND, NORTH -	35	+11	42	+14	1102	+ 62	31	+ 2
10. IRELAND, SOUTH -	42	+15	49	+17	1204	− 5	34	0
— CHANNEL ISLANDS -	33	− 3	39	− 5	1644	+ 58	47	+ 1

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been changeable and unsettled in all parts of the Kingdom. Extremely heavy rain was experienced over the east of Scotland during the earlier days of the week, and some heavy falls occurred from time to time in the western and north-western districts. In most parts of England, however, the falls, although equally frequent, were less heavy.

Temperature has been slightly below the mean in "Scotland E." and the "Channel Islands," just equal to the mean in nearly all other districts, and a little above it in "England E." and "S." The highest of the maxima were recorded on rather irregular dates, and ranged from 62° to 64° in Scotland, from 65° to 67° in Ireland, and from 65° to 69° over England. The lowest of the minima were registered on the 23rd in the north and on varying dates elsewhere; they were as low as 30° in "Scotland N." and 31° in "Scotland E." and "W." Elsewhere they varied from 36° in "England N.W." to 43° in "England N.E."

Rainfall has been rather less than the mean in "England E.," the "Midland Counties," and "England S." and "S.W.," as well as in "Ireland N.," and the "Channel Islands." In all other districts there has been an excess. In "Scotland E." the fall has amounted to about three times the average.

Bright Sunshine has exceeded the mean in Ireland, but has been deficient over Great Britain. The percentage of the possible amount of duration ranged from 49 in "Ireland S." 42 in "Ireland N.," and 39 in the "Channel Islands," to between 23 and 25 over the greater part of England and the west of Scotland, and to between 19 and 20 over "Scotland E." and "N."

Barometer and Wind.—At the commencement of the week a small depression, increasing in size and depth, moved north-eastwards from the mouth of the English Channel to our north-east coasts, and, after remaining almost stationary for a time over the North Sea, moved south-south-eastwards down our east coasts to the north-east of France, where it filled up quickly on Tuesday night. This disturbance caused very severe North-Easterly gales over the north-east of Scotland, and the exceptionally heavy rain noted above. After the influence of this system had ceased the barometer rose decidedly and became highest in the south and east; but depressions appeared subsequently off our western coasts, and towards the end of the period produced fresh or strong South-Westerly or Southerly winds in the west and north generally and a gale in many places.

* This value has been altered slightly owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 223 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	56	45	54·0	45·9	49·8	+ 0·5	55	0	3	0·42	−0·39	*	*	*	*
	Stornoway	58	40	55·0	45·7	50·1	+ 0·3	57	0	5	1·39	+0·39	19·3	− 4·7	23	− 5
	Wick	59	43	56·1	46·9	51·3	+ 1·0	65	0	4	0·19	−0·41	*	*	*	*
	Lairg ℌ	62	37	56·7	42·2	49·1	− 0·7	50	0	6	0·68	−0·12	*	*	*	*
	Glencarron ℌ	62	34	? 55·6	? 42·3	? 48·6	?− 0·8	? 46	0	5	2·87	+1·19	*	*	*	*
	Fort Augustus ℌ	? 61	30	? 55·8	? 43·4	? 49·3	?− 1·7	? 51	0	4	2·11	+1·20	9·5	?	11	?
	Fort William ℌ	61	36	57·3	45·8	51·3	− 0·3	65	0	5	2·93	+1·37	22·1	?	26	?
1. SCOTLAND, E.	Nairn	62	33	59·0	43·3	50·8	− 0·5	62	0	4	0·83	+0·23	*	*	*	*
	Aberdeen	60	41	55·1	46·7	50·7	− 0·6	61	0	3	3·58	+2·88	19·7	− 5·1	23	− 7
	Braemar ℌ	56	31	51·2	41·2	46·0	− 1·7	31	2	4	2·59	+1·76	5·2†	? †	6†	?†
	Ochtertyre ℌ	62	38	58·4	44·4	51·1	− 0·1	64	0	6	2·86	+2·01	*	*	*	*
	Leith	64	42	57·4	46·3	51·6	− 1·3	67	0	5	2·25	+1·75	*	*	*	*
	Marchmont ℌ	61	41	55·1	44·6	49·6	− 1·1	53	0	6	4·11	+3·35	19·8	?	24	?
2. ENGLAND, N.E.	Alnwick Castle	62	45	55·6	47·9	51·6	+ 0·2	67	0	6	1·50	+0·84	*	*	*	*
	Durham	65	43	56·9	46·9	51·7	− 0·2	68	0	5	1·24	+0·65	16·9	− 5·9	20	− 7
	Shields	67	45	57·3	48·1	52·5	− 0·2	74	0	6	1·08	+0·48	*	*	*	*
	Scarborough ℳ	63	45	58·8	50·0	54·2	+ 0·9	85	0	5	0·47	−0·20	*	*	*	*
	York	68	44	60·3	46·4	53·0	− 0·4	77	0	5	0·46	−0·16	17·3	− 4·9	21	− 6
	Spurn Head	66	47	61·3	50·6	55·7	+ 0·9	96	0	4	0·22	−0·27	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	66	44	62·1	49·3	55·4	+ 1·8	94	0	4	0·41	−0·21	22·9	− 3·2	27	− 4
	Yarmouth	65	49	61·9	52·4	56·9	+ 2·1	104	0	3	0·32	−0·38	*	*	*	*
	Geldeston	69	47	63·4	50·1	56·4	+ 2·0	101	0	3	0·30	−0·30	27·2	− 4·8	32	− 5
	Cambridge	68	43	63·7	49·3	56·2	+ 1·6	99	0	3	0·49	−0·03	16·5	−12·8	20	−15
	Rothamsted	64	39	60·8	48·9	54·6	+ 1·1	88	0	5	0·40	−0·23	13·8	?	16	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	68	38	61·6	43·0	51·9	− 1·5	69	0	4	0·36	−0·24	*	*	*	*
	Loughborough	67	43	62·3	48·7	55·2	+ 1·1	92	0	3	0·49	−0·16	*	*	*	*
	Stamford (Ketton Hall)	65	37	62·0	47·9	54·6	+ 1·0	88	0	4	0·70	?	*	*	*	*
	Cheadle ℳ	62	44	58·3	46·3	52·0	+ 0·2	70	0	4	0·87	+0·12	*	*	*	*
	Churchstoke ℳ	66	44	59·2	47·3	53·0	+ 1·1	77	0	6	0·63	−0·05	30·8	+ 4·3	37	+ 5
	Hereford ℳ	64	41	61·1	47·3	53·9	+ 0·3	83	0	5	0·46	−0·18	*	*	*	*
	Cirencester	61	39	? 58·9	? 47·7	? 53·0	?+ 0·1	? 77	0	5	0·31	−0·43	15·0	− 9·2	18	−13
	Oxford	63	45	60·0	49·9	54·7	+ 0·3	89	0	6	0·68	+0·07	11·5	−16·3	14	−21
5. ENGLAND, S.	London	69	42	64·1	50·3	56·9	+ 1·2	104	0	5	0·36	−0·23	18·8†	− 4·5†	22†	− 6†
	Strathfield Turgiss ℳ	66	41	63·0	46·5	54·4	+ 0·2	87	0	6	0·76	+0·14	*	*	*	*
	Dungeness	66	44	63·0	52·1	57·3	+ 1·0	107	0	5	0·36	−0·29	*	*	*	*
	Hastings (St. Leonards)	65	46	61·6	51·7	56·4	− 0·4	101	0	4	0·23	−0·45	24·7	− 9·3	29	−12
	Southampton	66	44	63·4	50·1	56·4	+ 0·7	101	0	5	0·32	−0·40	19·9	−12·1	24	−13
	Hurst Castle	65	46	62·7	53·3	57·8	+ 1·6	111	0	5	0·46	−0·25	*	*	*	*
	Stowell ℳ	61	45	59·4	49·9	54·4	+ 1·0	87	0	6	0·30	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	59	42	56·6	46·4	51·3	− 0·5	65	0	5	2·02	+0·34	*	*	*	*
	Glasgow	60	40	57·4	47·0	52·0	+ 0·8	70	0	6	1·95	+1·05	15·9	− 4·6	19	− 6
	Ardrossan	60	41	57·7	48·3	52·8	0·0	76	0	6	1·25	+0·36	*	*	*	*
	Glenlee ℌ	63	31	56·6	42·2	49·1	− 1·6	50	0	6	1·42	+0·14	*	*	*	*
	Douglas (Isle of Man)	61	45	57·6	48·5	52·8	+ 0·2	76	0	4	2·92	+2·02	23·6	− 6·0	28	− 7
7. ENGLAND, N.W.	Newton Reigny	63	36	56·0	43·7	49·6	− 2·1	53	0	5	1·90	+1·13	10·4	−16·6	12	−20
	Stonyhurst	64	45	57·0	47·7	52·1	− 0·3	71	0	5	1·03	−0·17	14·5	−12·5	17	−13
	Blackpool ℳ	65	44	60·4	47·9	53·9	+ 1·3	83	0	4	1·13	+0·25	18·5	− 7·0	22	− 9
	Manchester	65	44	58·4	47·9	52·9	+ 0·3	76	0	6	0·85	−0·05	*	*	*	*
	Liverpool Obsy. (Bidston)	65	47	59·4	49·4	54·2	0·0	85	0	6	0·83	0·00	*	*	*	*
	Llandudno ℳ	65	48	60·4	50·4	55·2	+ 0·3	92	0	4	1·07	+0·32	23·4	+ 0·9	28	+ 1
	Holyhead	62	47	58·6	51·4	54·8	− 0·2	90	0	6	1·44	+0·64	*	*	*	*
8. ENGLAND, S.W.	Llandovery	67	43	62·0	46·4	53·8	+ 0·2	83	0	7	0·81	−0·33	*	*	*	*
	Pembroke	60	48	58·4	51·9	55·0	0·0	91	0	5	0·93	+0·03	33·7	+ 3·7	40	+ 4
	Arlington (N. Devon)	64	41	60·0	47·7	53·6	0·0	81	0	6	1·12	−0·02	*	*	*	*
	Cullompton ℳ	64	41	62·2	49·6	55·6	+ 1·8	95	0	5	0·53	−0·34	18·1	− 9·7	22	−11
	Falmouth	64	46	60·4	51·6	55·3	0·0	97	0	5	0·47	−0·75	27·7	− 2·3	33	− 4
	Plymouth	62	45	60·3	51·5	55·7	− 0·2	96	0	5	0·74	−0·15	25·7	− 5·7	31	− 7
	Prawle Point	64	43	60·1	50·3	55·0	− 0·8	91	0	5	0·57	−0·10	*	*	*	*
9. IRELAND, N.	Malin Head	60	46	56·7	49·0	52·7	+ 0·9	75	0	4	0·92	?	*	*	*	*
	Londonderry	64	42	60·8	46·4	53·3	+ 0·6	79	0	4	0·77	−0·13	*	*	*	*
	Mullaghmore	63	47	59·1	49·4	54·0	− 0·1	84	0	5	0·77	−0·48	*	*	*	*
	Belmullet	61	48	58·3	50·1	54·0	− 1·4	84	0	5	1·74	?	*	*	*	*
	Markree Castle	63	39	59·0	42·5	50·4	− 1·2	59	0	4	0·46	−0·31	31·1	+10·7	37	+11
	Brookeborough	63	39	59·2	43·3	50·9	+ 0·3	62	0	4	0·81	−0·09	*	*	*	*
	Armagh	64	42	60·7	46·1	53·1	+ 1·3	78	0	4	0·47	−0·18	36·3	+13·8	43	+16
	Donaghadee	65	50	58·4	50·7	54·4	+ 1·6	87	0	7	0·64	−0·08	*	*	*	*
	Edgeworthstown	64	42	60·1	44·4	51·9	+ 0·4	69	0	4	0·47	−0·25	*	*	*	*
10. IRELAND, S.	Dublin	65	46	60·8	48·6	54·4	+ 0·6	87	0	6	0·51	−0·01	44·8	+16·9	53	+20
	Parsonstown	65	39	60·3	44·9	52·2	− 0·3	71	0	4	0·49	−0·23	40·4	+15·0	48	+18
	Kilkenny	67	40	60·6	46·6	53·3	− 0·3	79	0	5	0·59	−0·06	*	*	*	*
	Waterford	63	41	61·6	47·9	54·4	− 0·3	87	0	3	0·77	−0·01	*	*	*	*
	Roche's Point	62	47	59·6	50·0	54·6	− 0·2	88	0	3	0·76	−0·17	*	*	*	*
	Valencia	63	44	60·1	49·9	54·8	− 0·3	90	0	5	1·62	+0·56	39·2	+13·2	47	+15
	Killarney	65	41	61·0	47·0	53·7	− 0·3	82	0	4	1·35	?	*	*	*	*
	Foynes	61	44	59·6	47·6	53·3	− 0·2	79	0	4	0·86	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	61	50	59·1	52·6	55·7	− 1·3	96	0	6	0·67	−0·16	*	*	*	*
	Jersey	68	41	63·3	51·9	57·3	− 1·2	107	0	4	0·74	−0·04	32·5	− 3·5	39	− 5

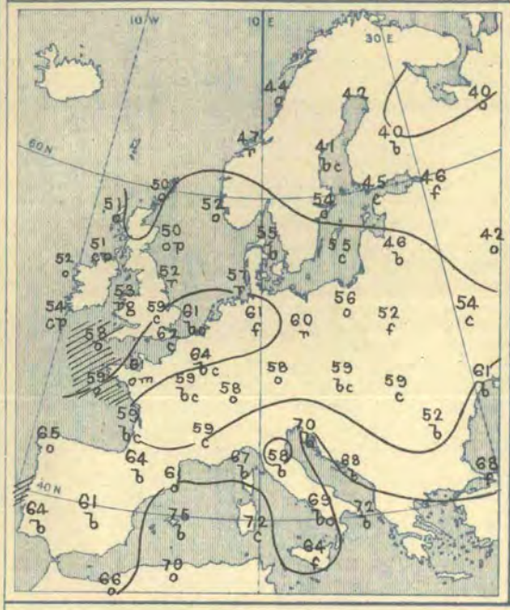
Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

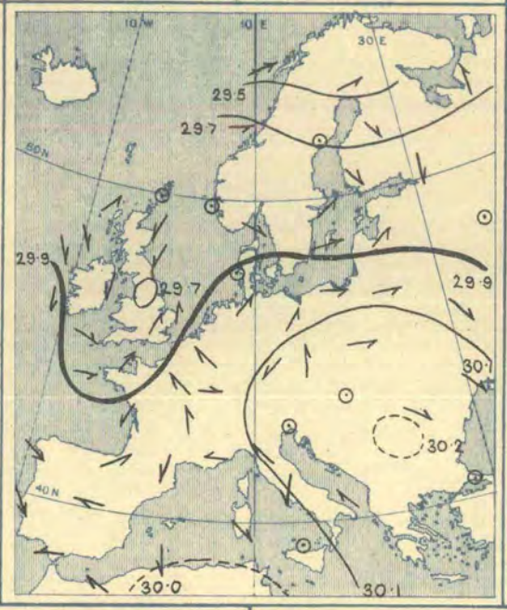
† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 20th September.

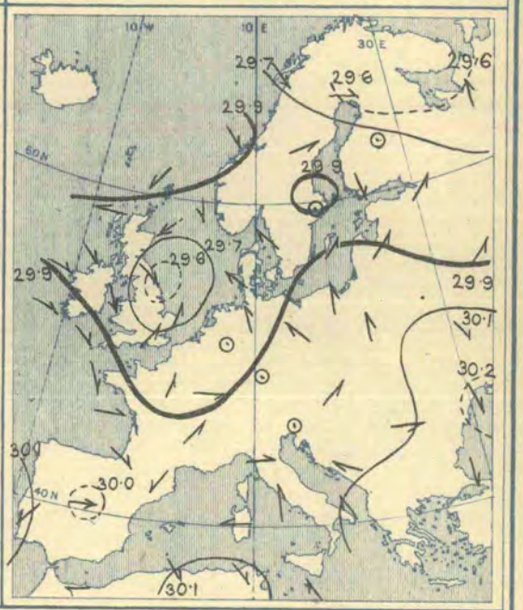
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright at most of the Spanish and Mediterranean stations, as well as in several parts of central and northern Europe; very unsettled over the British Islands, with much rain at the western stations and smaller quantities elsewhere; appearance of sky in London very unsettled. Very heavy rain over the east of Scotland and north-east of England later, considerable falls in most other places, but none at the Swedish and German stations. Thunderstorms occurring at Clermont and Sanguinaire.

Temperature falling fast in the extreme west and to a small extent in several other places. Morning readings still exceeding 70° at a few Mediterranean stations, but below 60° over by far the major part of Europe and the British Isles. Lowest, 40° at Archangel, 42° at Haparanda and Moscow, 44° at Bodö and Helsingfors, 46° at Riga and Nairn. Rising to between 60° and 66° over Great Britain later, and to between 70° and 77° in France and Germany; exceeding 80° in many parts of southern Europe. Falling decidedly over England at night.

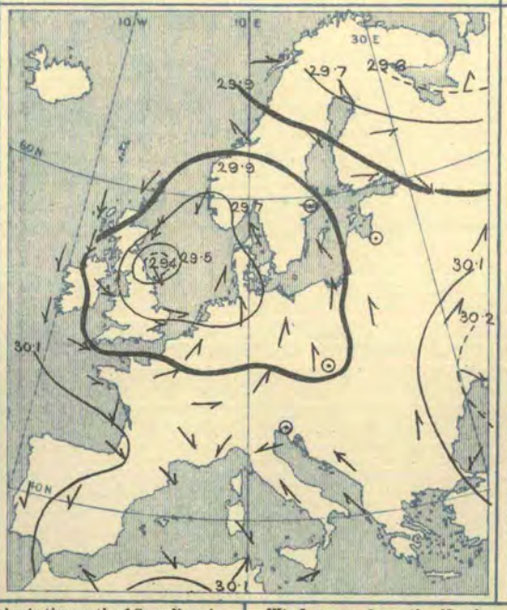
Wind very variable. Anticyclonic over south-eastern and central Europe, cyclonic, but of no great strength, over the United Kingdom; Westerly over Lapland, the north of Sweden, and the extreme north of Scotland, North-Westerly over Portugal. Veering Northwards over the greater part of the British Islands later, and increasing in strength.

Barometer highest, 30·2 ins. to 30·0 ins. in a large anticyclone covering south-eastern and central Europe, and exceeding 30·0 ins. over the Mediterranean and Spanish Peninsula. Lowest, 29·5 ins. and less over Lapland, and 29·7 ins. and less in a complex depression advancing north-eastwards across England. Latter disturbance reaching the North Sea later and growing deeper, and barometer rising both over northern Europe and on our own western coasts.

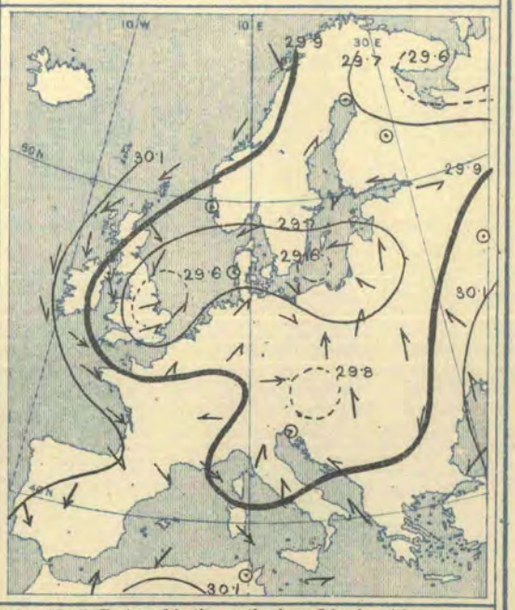
Monday, 21st September.

Temperature and Weather. — 8 a.m.

Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather dull over the northern parts of the United Kingdom, and also in the south of Scandinavia, with heavy rain in the south and east of Scotland; showery over the southern parts of our Islands. Rain falling over western Germany, Switzerland, and the north of Italy. Fog reported at many of the Baltic stations, but weather fine and bright in Russia, Austria, eastern Germany, central France, Ireland, Spain, and the Mediterranean. Further large quantities of rain reported in the east of Scotland during day; thunderstorms occurring in the south-east of England, as well as in some parts of France and Germany, with heavy rain (1·3 ins.) at Berlin.

Temperatures highest, 82° at La Calle, 75° at Brindisi, and 73° at Sanguinaire; above 70° at several of the Mediterranean stations and above 65° over southern Europe generally. Lowest, 39° at Archangel, 41° at Haparanda and Kuopio, and 43° at Bodö; below 50° over northern Europe generally, as well as in many parts of Great Britain. Daily maxima below 60° at all but our extreme southern stations and below 55° in the northern parts of the Kingdom; thermometer exceeding 65° in France, exceeding 70° in Germany, and reaching 80° or more in many parts of southern Europe.

Wind strong from the Northward or North-Eastward in the north of our Islands, with a gale at Aberdeen; fresh or strong from the North-Westward on our west and south-west coasts and moderate from the same quarter in the west of France; fresh from the Westward over the south and east of England; light from the Southward or South-Eastward over Denmark, Germany, and the Baltic. Westerly or North-Westerly over the northern parts of Russia and Scandinavia, variable in the south of Russia, and South-Easterly in Italy. Subsequently increasing to a gale from the Northward over the Irish Sea and the north of Ireland, but moderating somewhat in Scotland.

Barometer highest, 30·2 ins. and upwards in an anticyclone lying over the south of Russia; 30·1 ins. and upwards in another system extending from the Atlantic over Spain and the Bay of Biscay. Lowest, 29·4 ins. and less in a deep depression lying off the north-east coasts of England; 29·6 ins. and less in a shallow area lying to the northward of Russia. Depression over North Sea subsequently moving slowly southwards along our east coasts; other disturbances apparently forming over Denmark and the Baltic.

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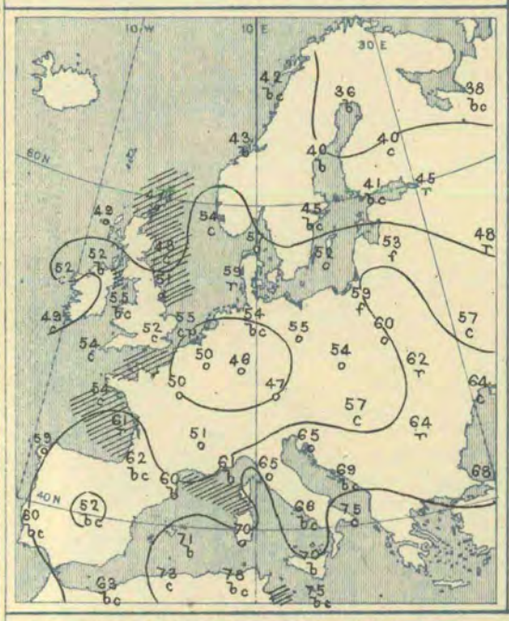
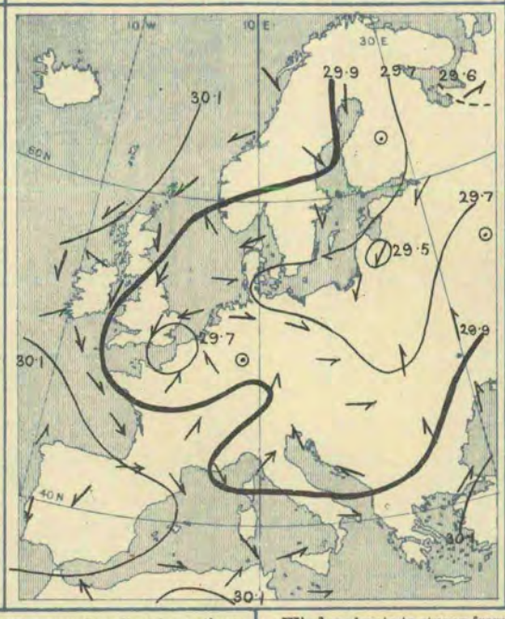
Tuesday, 22nd September.

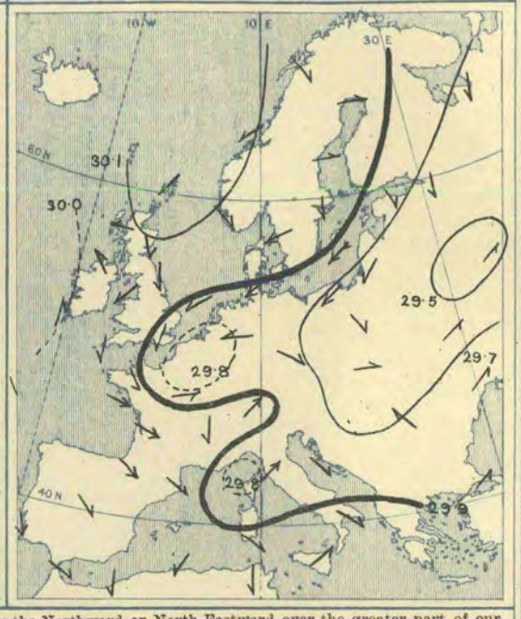
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright in the west and south of our Islands, as well as over Scandinavia, northern Russia, and the greater part of southern Europe. Cloudy or overcast elsewhere, with fog on the southern shores of the Baltic, passing showers in the east of England, and steady rain at some of the German and Austrian stations. Thunderstorms occurring during day in many parts of England, as well as in the south of Austria, and rain falling at most of the French stations.

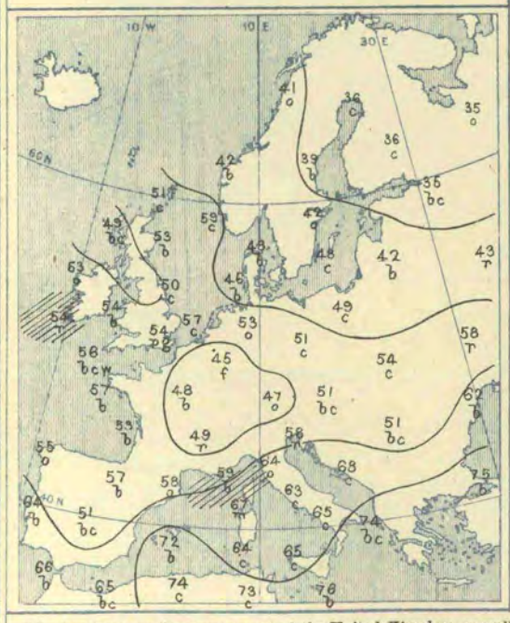
Temperature highest, 78° at La Calle, 77° at Sfax, 75° at Brindisi and Malta, and 73° at Algiers; above 70° over the central and southern parts of the Mediterranean generally, and above 60° in most parts of southern and eastern Europe. Lowest, 36° at Haparanda and Uleaborg, 38° at Archangel, and 40° at Knopio and Hernösand; below 45° over the northern parts of Russia and Scandinavia generally, as well as over central Ireland. Daily maxima below 60° in all the more northern parts of the United Kingdom, and below 55° in many places, but thermometer rising to 64° at Prawle Point and 68° at Cambridge. Exceeding 80° in Algeria and the south of Italy.

Wind moderate to strong from the Northward or North-Eastward over the greater part of our Islands, but from the North-Westward over the Channel and the Bay of Biscay. Light from the South-Westward over central France, and from the South-Eastward over the Netherlands. Northerly (North-West to North-East) over Scandinavia and northern Russia, but Westerly over Denmark and eastern Germany, and Southerly in the south of Russia. Chiefly South-Westerly in Italy, but North-Easterly in Spain and variable in Algeria. Subsequently falling light or moderate in all parts of our Islands and shifting to the Southward in the west of Ireland.

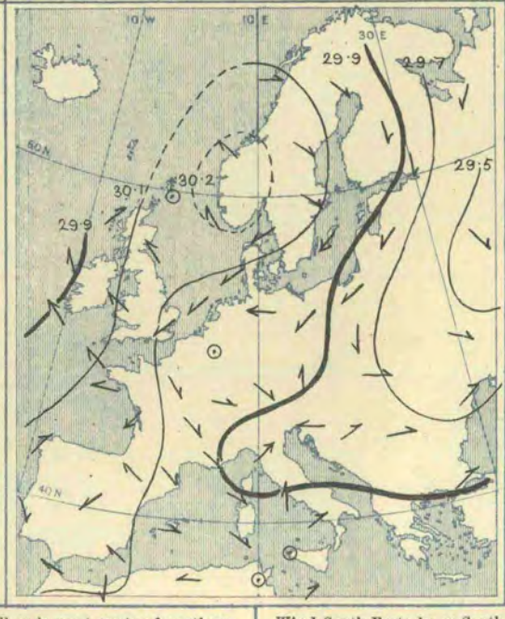
Barometer highest, 30·1 ins. and upwards in three large areas—one lying to the northward of our Islands, another over Spain and the Bay of Biscay, and a third over the Black Sea and the south of Russia. Lowest, 29·5 ins. and less in a depression lying over the Baltic Provinces; 29·6 ins. and less in a shallow area over the extreme north of Russia; 29·7 ins. and less in a well-marked disturbance lying off the south-east of England. Last-mentioned depression subsequently moving southwards and filling up, but new system beginning to appear off our west coasts.

Wednesday, 23rd September.

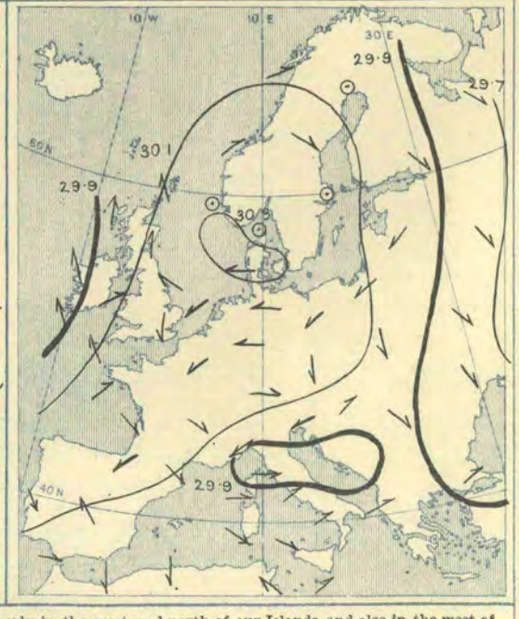
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the greater part of the United Kingdom, as well as in most parts of northern, central, and southern Europe, but rainy in the south-west of Ireland, and also at Lyons and Trieste. Dull and rainy over all the more central parts of Russia. Heavy rain falling later in the west and north of Ireland, and smaller amounts in the western parts of our Islands generally, as well as at most of the Italian stations.

Temperature highest, 79° at Sfax, 76° at Malta, 75° at Constantinople, and 74° at Brindisi and Algiers; above 60° in most parts of southern Europe. Lowest, 34° at Uleaborg, 35° at Archangel, Moscow, and Helsingfors, and 36° at Haparanda; below 45° over northern Europe generally and below 50° in many parts of Germany. Daily maxima below 60° at several of our western and northern stations, but thermometer reaching 66° at Jersey and 67° at Loughborough. Exceeding 70° in the south of France, and exceeding 80° over Algeria and the south of Italy.

Wind South-Easterly or Southerly in the west and north of our Islands, and also in the west of Norway; light or moderate in force generally, but strong at Valencia Island. Northerly over Sweden and northern Russia and North-Easterly over Denmark and the Baltic, but Westerly over Austria, and South-Westerly or Southerly in the south of Russia. Northerly or North-Easterly in the east and south of England, and North-Westerly in France; South-Westerly or Southerly in Italy—strong in force at Leghorn. Variable in Spain and Algeria. No important change occurring during day.

Barometer highest, 30·2 ins. and upwards over the south of Scandinavia; 30·1 ins. and upwards in a large anticyclone extending northwards from Spain across the west of France and the more central parts of our Islands to the west of Norway. Lowest, 29·5 ins. and less in a large shallow depression lying over central Russia; 29·8 ins. and less in two small disturbances lying respectively over the Gulf of Genoa and the northern parts of the Adriatic; 29·9 ins. and less in a small disturbance lying off the west of Ireland. Very little change occurring later.

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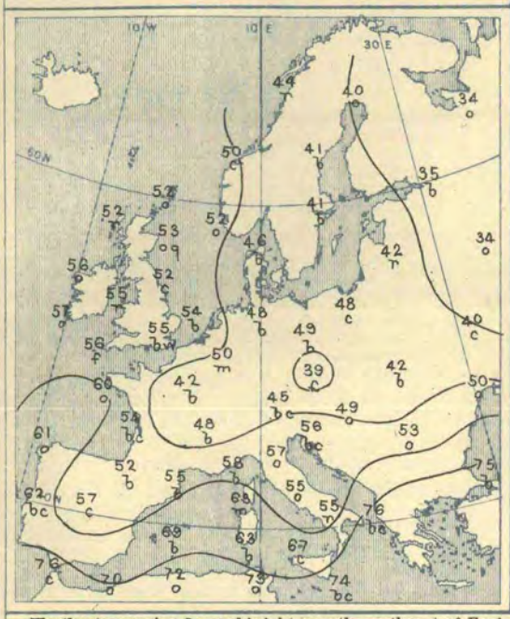
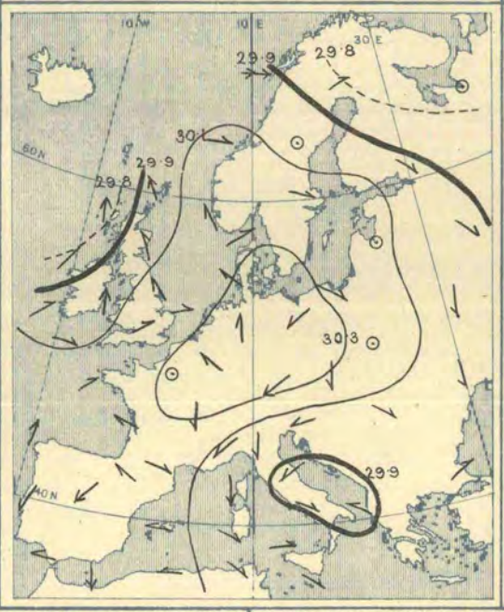
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 24th September.

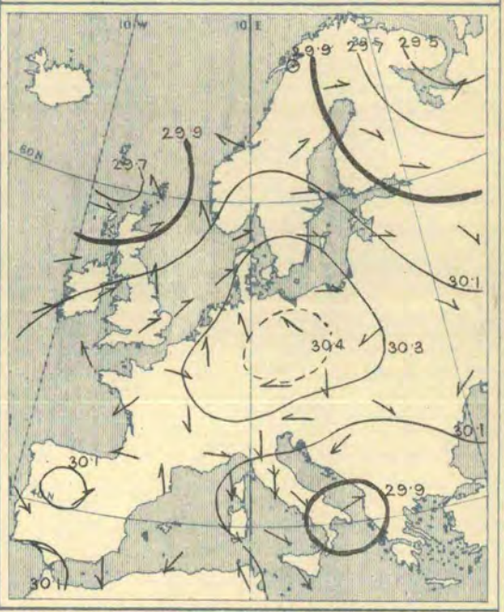
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the south-east of England and the greater part of the Continent, but dull in the west and north of our Islands, with rain in Wales, the north of Ireland, and the west of Scotland. Dull at most of the Russian stations and in Italy and in Algeria, with rain at Pesaro and Rome. Slight rain falling later in most parts of the United Kingdom, as well as in the west of Norway.

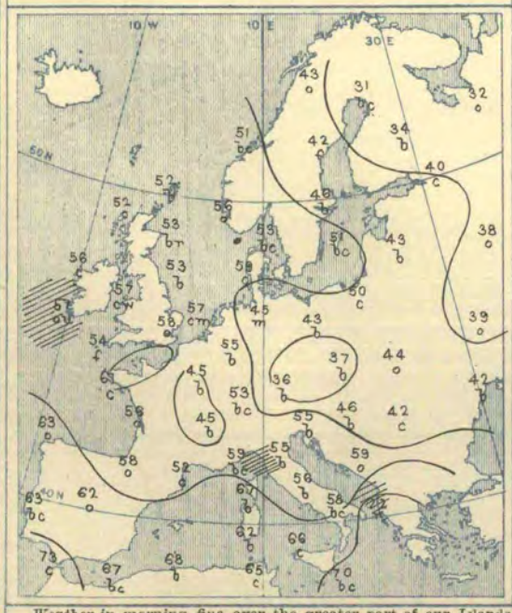
Temperature highest, 76° at San Fernando and Brindisi, 75° at Constantinople, 74° at Malta, and 73° at La Calle; above 60° over the central and southern parts of the Mediterranean generally, and also on the coasts of the Iberian Peninsula, but below that point over central and northern Italy and the south of France. Lowest, 34° at Archangel and Moscow, 35° at Uleaborg and St. Petersburg, and 36° at Helsingfors; below 40° in some parts of central Europe. Thermometer scarcely reaching 65° during day in any part of the United Kingdom, and remaining below 60° at several of our northern stations, but rising above 70° in France, and exceeding 80° in many parts of Spain and Algeria.

Wind light to fresh from the Southward over the greater part of the United Kingdom, but South-Westerly or Westerly on our extreme south-west coasts. Light from the South-Eastward on the eastern shores of the North Sea, and also in the west of France; Westerly or North-Westerly over the northern parts of Scandinavia and Russia, Northerly in eastern Germany, North-Westerly in Italy, and variable in Spain and Algeria. Subsequently veering to the South-Westward over the United Kingdom generally; very little change occurring elsewhere.

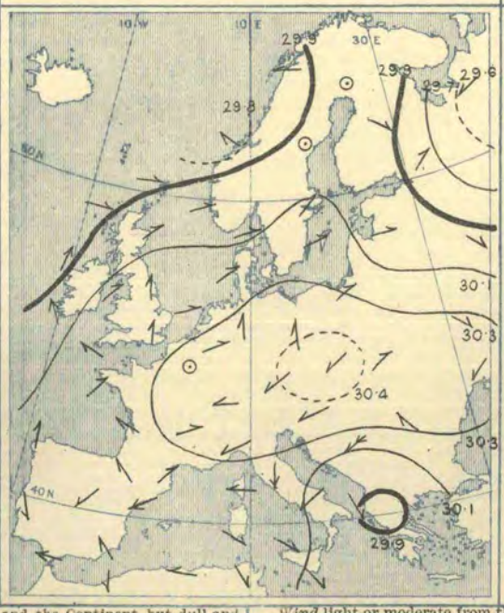
Barometer highest, 30·2 ins. to 30·3 ins. and upwards in a large anticyclone covering all the more central parts of Europe. Lowest, 29·8 ins. and less in a depression lying off the extreme north-west of our Islands, and also in a large shallow area lying over Lapland and northern Russia; 29·9 ins. and less in a depression lying over the southern parts of Italy and the Adriatic. Depression in north-west subsequently travelling away in a northerly direction, and barometer rising at all our western stations. Russian disturbance becoming somewhat deeper.

Friday, 25th September.

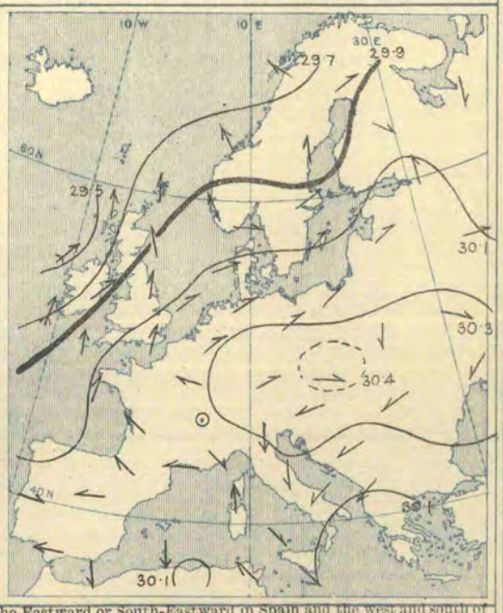
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine over the greater part of our Islands and the Continent, but dull and unsettled on our extreme south-west coasts, with rain at Prawle Point. Cloudy also over Norway, central Russia, Spain, and the southern parts of the Adriatic, with rain at Brindisi. Heavy rain setting in later over all the western parts of the United Kingdom, and smaller amounts falling in the north, as well as in Scandinavia and northern Russia.

Temperature highest, 73° at San Fernando, 72° at Brindisi, 71° at Tunis, 70° at Malta, and 68° at Algiers; above 60° over Spain and the central and southern parts of the Mediterranean generally, as well as at some of the Channel stations. Lowest, 29° at Uleaborg, 31° at Haparanda, 32° at Archangel, 33° at Kharkov, and 34° at Knopio; below 40° at nearly all the Russian stations, as well as over the southern parts of Germany and Austria. Rising during day to between 65° and 70° over the greater part of England, exceeding 70° at many of the French, Spanish, and Italian stations, and exceeding 80° in Algeria and the south of Spain.

Wind light or moderate from the Eastward or South-Eastward in Spain and the west and south of France, from the Southward over the greater part of Ireland and England, and from the South-Westward or Westward over Scotland, as well as over Denmark, north Germany, the Baltic, and the south of Scandinavia. Light from the Westward or North-Westward in Russia, variable over central Europe; North-Easterly or Northerly over Italy and the Adriatic, with a moderate gale at Rome and a strong gale at Lesina; North-Westerly over Sicily, Tunis, and the adjacent parts of the Mediterranean. Subsequently increasing to a gale from the Southward on the west coasts of Ireland and Scotland.

Barometer highest, 30·4 ins. over Poland and eastern Germany; 30·1 ins. and upwards in a large anticyclone covering the greater part of Europe. Lowest, 29·6 ins. and less in a depression lying over northern Russia; 29·8 ins. and less in another disturbance off the west of Norway; 29·9 ins. and less in a third system lying to the westward of Ireland, and also in a fourth lying over the southern parts of the Adriatic. Depression in far west subsequently advancing in a north-easterly direction towards the west of Scotland, and barometer falling quickly on our west and north-west coasts.

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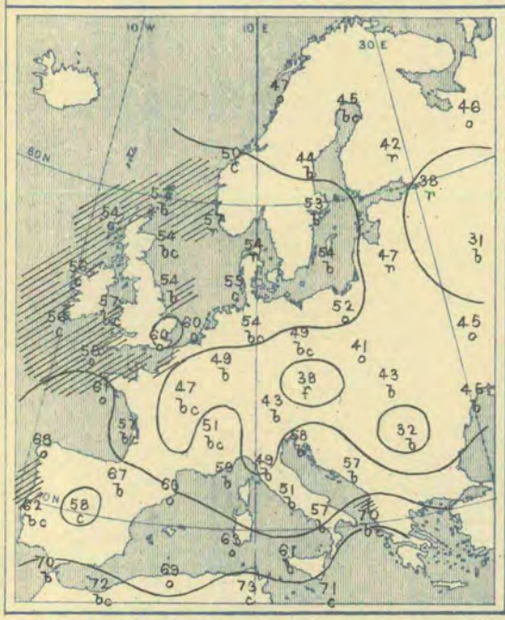
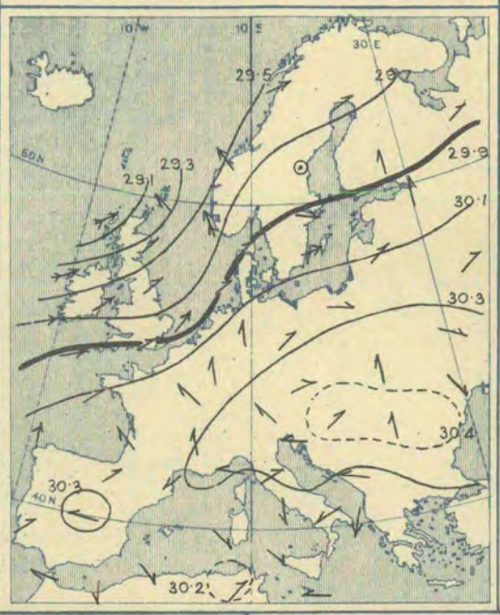
Saturday, 26th September.

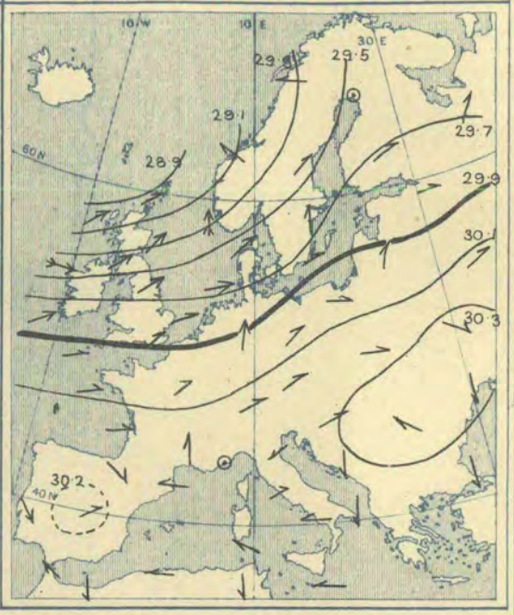
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine in the west and north of our Islands, as well as over Sweden and the greater part of central, southern, and eastern Europe. Dull and rainy at many of the English stations, and also over Finland and the south of Scandinavia. Rain falling later in many parts of the United Kingdom and France, as well as over the greater part of northern Europe.

Temperature highest, 73° at La Calle, 72° at Oran, 71° at Malta, and 70° at Brindisi and San Fernando; above 60° over Spain, Algeria, and the south of Italy, as well as in the extreme south of England. Lowest, 31° at Moscow, 37° at Warsaw, and 38° at Uleaborg, St. Petersburg, Prague, and Vienna; below 45° in most parts of Russia and central Europe. Daily maxima very little above 60° in any part of the United Kingdom, but thermometer exceeding 70° at most of the French stations, and exceeding 80° in Algeria, Sardinia, and the extreme south of Spain.

Wind strong from the South-Westward over the greater part of the United Kingdom, with a gale in the extreme north-west; light from the same quarter in the west of France. Light from the Southward over Denmark, Germany, and the Netherlands; strong to a gale from the South-Eastward in the west of Norway. Light or moderate from South or South-West over Sweden, the Baltic, and northern Russia. Variable in Austria and the south of Russia; light from the North-Eastward in Italy and the south of France. South-Westerly gale springing up later in the north and east of Scotland.

Barometer highest, 30·4 ins. and upwards in Austria; 30·2 ins. and upwards in a large anticyclone covering the whole of central, southern, and eastern Europe, with a considerable portion of the Mediterranean. Lowest, 29·1 ins. and less in a well-marked depression lying off the north-west of Scotland. Depression subsequently moving north-eastwards and barometer rising briskly on our western coasts.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit.—Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During the early part of last week considerable fluctuations were observed in the distribution of barometrical pressure. At the commencement of the time the highest readings were found in an anticyclone lying over south-eastern Europe, while the lowest were reported from Lapland. A small depression increasing in intensity was, however, travelling north-eastwards across England, and on the night of the 20th, when this disturbance lay off our north-east coasts, a strong Northerly and North-Easterly gale set in over Scotland, accompanied by exceedingly heavy rain in the eastern and southern parts of that country. In the course of the ensuing 24 hours the depression moved southwards to the north-east of France and gradually dispersed; and while the anticyclone over south-eastern Europe gave way a new high-pressure area advanced from the Atlantic to our extreme west and south-west coasts. The latter system afterwards spread eastwards and north-eastwards until it embraced the greater part of western Europe, but after the 23rd its central portion moved southwards, and depressions began to skirt our extreme north-western and northern coasts. During the latter part of the week the conditions in Ireland, Scotland, and Norway were changeable and unsettled, with frequent and, at times, heavy falls of rain, and occasional gale from the South-Westward. In the more central, southern, and eastern parts of Europe, however, the weather was mostly fine.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 224.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	17·8	?	21	?	NEWQUAY				
OSWALDKIRK (Yorkshire)	15·4	?	18	?	TORQUAY	23·6*	?	28*	?
WORKSOP	22·7	− 0·5	27	− 1	ARLEY COTTAGE (County Cavan)	38·8	?	46	?
THURCASTON (Leicestershire)	16·3	− 6·4	19	− 8	GUERNSEY	30·6*	?	36*	?
EASTBOURNE									

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 39.] *Third Series.* WEEK ENDING SATURDAY, 3RD OCTOBER, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 230.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	65	29	56·9	45·3	50·8	2 above.	62	+12	0	− 4	1819	+197	621	+ 76
	1. SCOTLAND, EAST -	68	30	58·5	45·0	51·4	2 above.	66	+ 6	0	− 3	2041	− 33	670	+ 98
	2. ENGLAND, N.E. - -	67	40	59·5	47·3	53·1	2 above.	78	+13	0	− 1	2136	− 78	593	+ 95
	3. ENGLAND, EAST -	70	37	63·8	46·5	54·7	2 above.	89	+16	0	− 2	2477	− 93	689	+127
	4. MIDLAND COUNTIES	69	36	61·5	45·3	53·0	2 above.	77	+ 9	0	− 4	2429	− 94	668	+113
	5. ENGLAND, SOUTH -	69	36	63·5	48·3	55·5	2 above.	95	+18	0	− 2	2658	−112	565	+149
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	63	37	58·1	47·5	52·5	2 above.	74	+11	0	− 4	2232	+107	462	+ 45
	7. ENGLAND, N.W. -	66	39	58·8	48·9	53·7	2 above.	82	+15	0	− 3	2361	+ 49	449	+ 35
	8. ENGLAND, S.W. -	66	33	59·7	47·8	53·4	0 (average)	80	+ 2	0	− 2	2470	− 92	434	+118
	9. IRELAND, NORTH -	65	36	59·2	48·1	53·4	2 above.	80	+14	0	− 2	2343	+ 76	391	+ 29
	10. IRELAND, SOUTH -	67	39	59·9	48·8	54·1	2 above.	85	+10	0	− 2	2576	+ 25	309	+ 31
	— CHANNEL ISLANDS -	68	47	62·8	52·5	57·4	1 above.	108	+ 9	0	0	2843	− 15	162	+ 40

Rainfall.

	DISTRICTS. (See p. 230.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	6	15	4 more.	181	+ 5	37·2	+ 3·5
	1. SCOTLAND, EAST -	5	3	4 less.	133	−12	21·1	− 2·1
	2. ENGLAND, N.E. - -	3	3	3 less.	129	− 5	16·9	− 2·2
	3. ENGLAND, EAST -	3	4	2 less.	135	+ 4	17·8	− 1·1
	4. MIDLAND COUNTIES-	3	4	3 less.	132	+ 3	19·2	− 2·0
	5. ENGLAND, SOUTH -	3	4	2 less.	128	+ 3	19·3	0·0
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	7	16	5 more.	145	− 8	29·2	− 5·9
	7. ENGLAND, N.W. - -	4	12	3 more.	129	−11	24·4	− 0·3
	8. ENGLAND, S.W. - -	4	7	3 less.	136	− 7	27·0	− 1·4
	9. IRELAND, NORTH -	6	8	1 less.	161	− 5	23·1	− 3·2
	10. IRELAND, SOUTH -	4	5	3 less.	143	− 8	24·8	− 3·4
	— CHANNEL ISLANDS -	3	8	1 less.	135	−18	22·1	− 0·5

Bright Sunshine.

	DISTRICTS. (See p. 230.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	19	+ 4	24	+ 5	1013	0	28	0
	1. SCOTLAND, EAST -	21	+ 3	27	+ 3	1129	− 49	31	− 1
	2. ENGLAND, N.E. - -	19	− 4	23	− 3	1069	− 9	29	− 1
	3. ENGLAND, EAST -	51	+21	63	+29	1225	− 85	34	− 3
	4. MIDLAND COUNTIES-	36	+11	44	+15	1161	− 9	32	− 1
	5. ENGLAND, SOUTH -	56	+26	69	+33	1336	+ 63	37	+ 1
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	16	− 8	21	− 8	1195	+ 28	33	+ 1
	7. ENGLAND, N.W. - -	13	−10	16	−13	1094	− 65	30	− 2
	8. ENGLAND, S.W. - -	33	+ 3	41	+ 6	1380	+ 1	38	0
	9. IRELAND, NORTH -	26	+ 5	32	+ 7	1128	+ 68	31	+ 2
	10. IRELAND, SOUTH -	35	+10	42	+10	1239	+ 5	34	0
	— CHANNEL ISLANDS -	52	+19	64	+22	1696	+ 77	48	+ 3

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been generally fine and bright over all the more southern and south-eastern parts of the Kingdom, but in the west and north cloudy skies and frequent falls of rain have been experienced.

Temperature has just equalled the mean in "England S.W.," but in all other districts it has been above, the excess in nearly all cases having been 2°. The highest of the maxima were generally recorded on September 28th, when the thermometer rose to 70° in "England E.," to 69° in the "Midland Counties" and "England S.," to 68° in "Scotland E." and the "Channel Islands," and to between 63° and 67° elsewhere. The lowest of the minima were registered either on October 2nd or 3rd, and ranged from 29° in "Scotland N.," 30° in "Scotland E.," and 33° in "England S.W.," to 40° in "England N.E.," and to 47° in the "Channel Islands."

Rainfall has been more than the mean in "Scotland N." and "W.," as well as in "England N.W.," but in all other districts it has been less than the normal.

Bright Sunshine has exceeded the mean in most parts of the country, but shows a deficit in "England N.E.," "Scotland W.," and "England N.W." The percentage of the possible amount of duration ranged from 69 in "England S.," 64 in the "Channel Islands," and 63 in "England E.," to a little more than 40 in the "Midland Counties," "England S.W.," and "Ireland S." and to between 16 and 27 over the north-western and northern districts.

Barometer and Wind.—The barometer has been highest over the southern parts of our area, and depressions travelling northwards and north-eastwards have skirted our extreme western and north-western coasts, but their influence has not been felt in the south and east. During Thursday, however, a shallow secondary disturbance moved east-north-eastwards over the southern parts of England and caused considerable falls of rain. South-Westerly to Westerly winds have prevailed very generally; they have been light or moderate in the east and south, but have occasionally blown strongly in the west and north, and during the night of October 3rd increased to a strong gale at some of our extreme western and north-western stations.

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II.—DATA from which the SUMMARY on page 229 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.)								Rainfall.			Bright Sunshine.			
		Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	56	41	54·6	45·1	49·6	+ 1·6	53	0	6	0·52	−0·36	*	*	*	*
	Stornoway	60	41	56·1	46·1	50·9	+ 2·3	62	0	7	1·52	+0·51	26·9	+ 4·0	34	+ 5
	Wick	61	34	58·9	44·4	51·3	+ 2·2	65	0	3	0·20	−0·42	*	*	*	*
	Lairg Ⓢ	65	29	59·4	42·1	50·3	+ 1·6	58	0	6	0·26	−0·59	*	*	*	*
	Glencarron Ⓢ	61	35	56·1	44·6	50·1	+ 1·9	57	0	7	2·61	+0·84	*	*	*	*
	Fort Augustus Ⓢ	61	41	57·0	46·5	51·5	+ 1·9	67	0	7	1·45	+0·53	17·3	?	22	?
	Fort William Ⓢ	60	45	55·9	48·5	52·0	+ 1·8	70	0	7	4·00	+2·30	11·6	?	15	?
1. SCOTLAND, E.	Nairn	68	30	61·0	44·6	52·4	+ 2·6	73	0	4	0·11	−0·49	*	*	*	*
	Aberdeen	62	34	58·0	45·1	51·2	+ 1·2	64	0	4	0·22	−0·48	26·2	+ 2·7	33	+ 3
	Braemar Ⓢ	61	32	55·7	41·8	48·4	+ 1·9	46	1	4	0·36	−0·51	23·0†	? †	29†	? †
	Ochtertyre Ⓢ	63	38	59·1	45·7	52·1	+ 2·4	71	0	5	0·54	−0·34	*	*	*	*
	Leith Ⓢ	65	43	60·9	47·7	54·0	+ 2·4	84	0	5	0·38	−0·10	*	*	*	*
	Marchmont Ⓢ	59	39	56·4	45·0	50·4	+ 1·3	59	0	5	0·26	−0·46	14·0	?	18	?
2. ENGLAND, N.E.	Alnwick Castle	61	40	57·7	47·4	52·3	+ 2·4	72	0	2	0·48	−0·15	*	*	*	*
	Durham	62	40	58·7	45·5	51·8	+ 1·2	69	0	4	0·24	−0·36	16·6	− 4·7	21	− 5
	Shields	63	41	58·9	47·3	52·8	+ 1·5	76	0	3	0·15	−0·45	*	*	*	*
	Scarborough ℳ	64	42	59·6	47·1	53·1	+ 1·3	78	0	3	0·13	−0·55	*	*	*	*
	York	66	41	60·6	46·1	53·0	+ 1·3	77	0	4	0·33	−0·27	20·6	0·0	25	0
	Spurn Head	67	45	61·7	50·4	55·8	+ 2·2	97	0	3	0·27	−0·23	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	67	37	63·4	45·1	53·8	+ 1·8	83	0	3	0·23	−0·37	42·4	+18·1	52	+22
	Yarmouth	65	41	62·3	48·9	55·3	+ 2·2	93	0	2	0·26	−0·43	*	*	*	*
	Geldeston	68	39	64·8	47·0	55·5	+ 2·7	95	0	2	0·50	−0·09	55·4	+25·6	68	+32
	Cambridge	70	40	65·3	46·0	55·2	+ 2·6	92	0	3	0·59	+0·08	52·5	+25·0	65	+31
	Rothamsted	68	38	63·3	45·3	53·9	+ 2·3	83	0	3	0·54	−0·09	54·5	?	67	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	69	41	62·3	45·9	53·7	+ 2·1	82	0	3	0·38	−0·22	*	*	*	*
	Loughborough	69	38	63·7	47·7	55·3	+ 3·0	93	0	3	0·20	−0·45	*	*	*	*
	Stamford (Ketton Hall)	68	36	63·7	44·7	53·7	+ 1·7	82	0	3	0·40	?	*	*	*	*
	Cheadle ℳ	65	39	58·7	44·1	51·1	+ 0·9	64	0	4	0·42	−0·33	*	*	*	*
	Churchstoke ℳ	66	38	59·0	44·5	51·4	+ 1·0	66	0	3	0·54	−0·16	30·0	+ 5·5	37	+ 6
	Hereford ℳ	67	39	60·9	45·5	52·8	+ 1·0	76	0	2	0·29	−0·33	*	*	*	*
	Cirencester	65	36	60·9	43·3	51·7	+ 0·3	68	0	2	0·55	−0·17	39·1	+16·3	48	+18
	Oxford	67	41	62·6	46·9	54·3	+ 1·7	86	0	3	0·43	−0·17	49·6	+23·6	61	+28
5. ENGLAND, S.	London	69	40	65·1	47·4	55·8	+ 1·8	97	0	3	0·46	−0·14	51·2†	+29·0†	63†	+36†
	Strathfield Turgiss ℳ	67	36	64·4	45·6	54·6	+ 2·1	88	0	4	0·41	−0·20	*	*	*	*
	Dungeness	66	38	64·9	49·9	57·0	+ 2·2	105	0	1	0·10	−0·60	*	*	*	*
	Hastings (St. Leonards)	63	43	61·8	49·7	55·5	+ 0·5	95	0	1	0·22	−0·50	60·1	+28·0	71	+34
	Southampton	67	41	64·7	46·6	55·2	+ 1·0	92	0	3	0·73	+0·01	50·7	+20·7	63	+28
	Hurst Castle	66	46	63·4	52·9	57·9	+ 3·1	111	0	3	0·62	−0·10	*	*	*	*
	Stowell ℳ	64	39	59·9	46·2	52·7	+ 0·8	75	0	5	0·56	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	63	44	60·1	47·2	53·3	+ 2·9	79	0	7	3·94	+2·24	*	*	*	*
	Glasgow	60	45	57·5	48·1	52·6	+ 2·7	74	0	7	0·96	+0·08	13·3	− 5·5	17	− 7
	Ardrossan	60	49	57·7	51·4	54·4	+ 2·7	87	0	7	0·72	−0·18	*	*	*	*
	Glenlee Ⓢ	60	37	57·9	43·5	50·4	+ 0·9	59	0	7	1·42	+0·13	*	*	*	*
	Douglas (Isle of Man)	60	42	57·1	47·2	51·9	+ 0·6	69	0	7	1·09	+0·19	19·1	− 8·4	24	−10
7. ENGLAND, N.W.	Newton Reigny	63	39	56·8	45·2	50·7	+ 0·6	61	0	5	1·15	+0·39	6·2	−18·6	8	−23
	Stonyhurst	64	44	58·0	47·5	52·5	+ 1·5	74	0	4	0·94	−0·26	23·4	− 0·6	29	0
	Blackpool ℳ	63	47	60·1	50·3	55·0	+ 3·7	91	0	3	1·58	+0·68	3·6	−19·6	4	−25
	Manchester	61	41	57·7	45·8	51·5	+ 0·3	67	0	6	1·00	+0·10	*	*	*	*
	Liverpool Obsy. (Bidston)	66	47	60·0	50·6	55·1	+ 2·3	92	0	4	1·04	+0·21	*	*	*	*
	Llandudno ℳ	66	48	60·2	51·3	55·5	+ 1·9	95	0	4	1·29	+0·49	16·7	− 3·5	21	− 5
	Holyhead	61	49	59·0	51·9	55·3	+ 1·5	93	0	5	1·29	+0·45	*	*	*	*
8. ENGLAND, S.W.	Llandovery	63	33	60·4	43·6	51·6	− 0·5	67	0	4	1·07	−0·08	*	*	*	*
	Pembroke	60	50	58·3	53·4	55·7	+ 1·8	96	0	5	0·71	−0·21	28·0	+ 0·6	35	+ 1
	Arlington (N. Devon)	64	42	58·4	46·3	52·1	− 0·2	71	0	4	0·88	−0·30	*	*	*	*
	Cullompton ℳ	66	37	61·5	43·6	52·1	− 0·5	71	0	4	0·58	−0·32	32·5	+ 7·3	40	+ 8
	Falmouth	62	46	59·9	48·5	53·9	− 0·9	83	0	3	0·48	−0·77	32·9	+ 5·1	41	+ 6
	Plymouth	62	41	60·2	47·3	53·4	− 1·2	80	0	3	0·73	−0·12	33·6	+ 4·6	42	+11
	Prawle Point	61	45	58·9	51·6	55·1	+ 0·5	92	0	3	0·44	−0·28	*	*	*	*
9. IRELAND, N.	Malin Head	62	45	57·7	48·4	52·8	+ 2·2	76	0	7	0·46	?	*	*	*	*
	Londonderry	64	43	58·6	48·2	53·2	+ 2·2	78	0	7	0·76	−0·15	*	*	*	*
	Mullaghmore	65	45	58·9	49·9	54·2	+ 1·3	85	0	7	0·95	−0·29	*	*	*	*
	Belmullet	61	47	55·3	50·4	54·2	0·0	85	0	7	2·28	?	*	*	*	*
	Markree Castle	63	36	58·7	46·7	52·4	+ 2·0	73	0	7	0·89	+0·09	23·2	+ 3·2	29	+ 3
	Brookeborough	62	42	58·3	47·1	52·4	+ 3·0	73	0	6	0·84	−0·06	*	*	*	*
	Armagh	65	43	60·1	47·4	53·5	+ 3·1	81	0	6	0·23	−0·39	29·6	+ 8·6	37	+11
	Donaghadee	64	44	60·7	49·6	54·9	+ 3·2	90	0	4	0·20	−0·51	*	*	*	*
	Edgeworthstown	64	41	61·4	45·6	53·1	+ 3·3	78	0	4	0·25	−0·45	*	*	*	*
10. IRELAND, S.	Dublin	66	47	60·9	49·4	54·9	+ 2·4	90	0	3	0·08	−0·46	40·4	+14·2	45	+13
	Parsonstown	67	41	60·9	46·9	53·6	+ 2·7	81	0	5	0·23	−0·49	31·2	+ 7·2	39	+10
	Kilkenny	64	43	60·0	47·0	53·2	+ 1·1	78	0	3	0·34	−0·27	*	*	*	*
	Waterford	62	39	59·6	47·1	53·1	− 0·3	78	0	3	0·77	−0·03	*	*	*	*
	Roche's Point	62	46	58·4	50·0	54·0	+ 0·7	84	0	2	0·55	−0·37	*	*	*	*
	Valencia	61	45	59·4	50·7	54·8	+ 1·0	90	0	7	0·53	−0·57	32·9	+ 8·8	41	+10
	Killarney	62	41	59·1	49·5	54·1	+ 1·4	85	0	7	1·29	?	*	*	*	*
	Foynes	67	42	60·8	45·7	55·0	+ 3·0	91	0	5	0·46	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	64	52	60·9	53·6	57·1	+ 1·3	106	0	4	0·93	+0·11	*	*	*	*
	Jersey	68	47	64·6	51·3	57·6	+ 0·7	109	0	1	0·57	−0·25	51·5	+18·4	64	+22

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

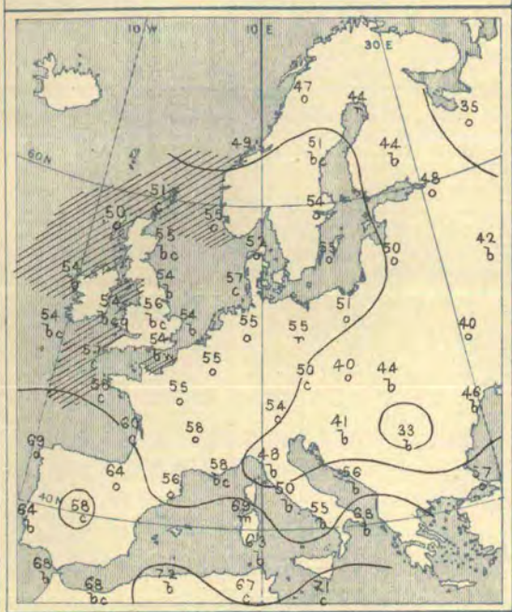
† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 27th September.

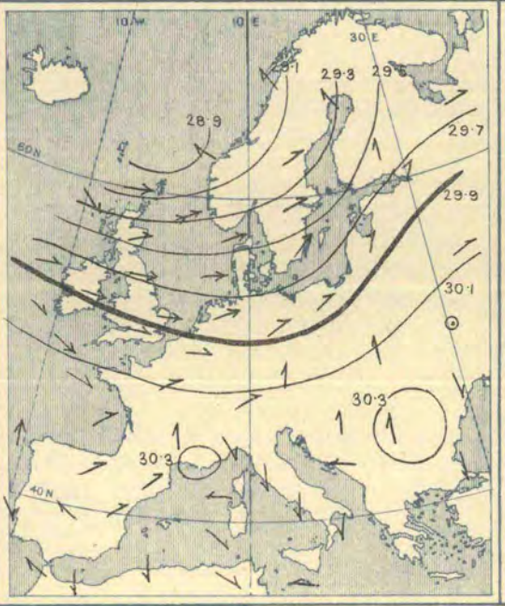
Temperature and Weather.

8 a.m.

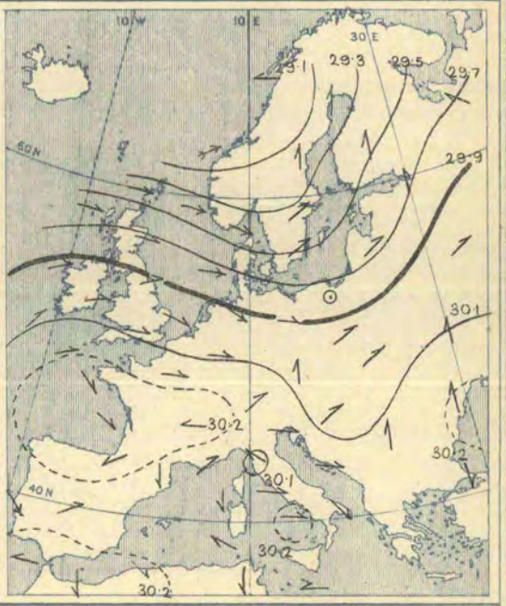


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine over the greater part of the United Kingdom, as well as over Algeria, Spain, Italy, Austria, and the south of Russia. Cloudy or overcast over the greater part of northern and central Europe, with rain in many places and a thunderstorm at Helsingfors. Subsequently becoming dull and unsettled in the west and extreme north of our Islands; continuing showery over the North Sea, Baltic, and Germany; heavy rain falling in the east and south-east of France, and a considerable quantity in Switzerland and north Italy.

Temperature highest, 72° at Algiers, 71° at Oporto, Barcelona, and Malta, and 68° at Brindisi and Oran; above 60° at most of the Mediterranean stations, and also on the coasts of the Iberian Peninsula. Lowest, (1) 33° at Hermanstadt, 40° at Cracow, and 41° at Vienna and Buda-Pesth; (2) 35° at Archangel, 41° at Uleaborg, and 42° at Moscow. Daily maxima very little above 60° in any part of our Islands, and below 60° at most of the German stations, but exceeding 70° in the south of France and many parts of Italy, touching 80° in the south of Spain, and 90° in some parts of Algeria.

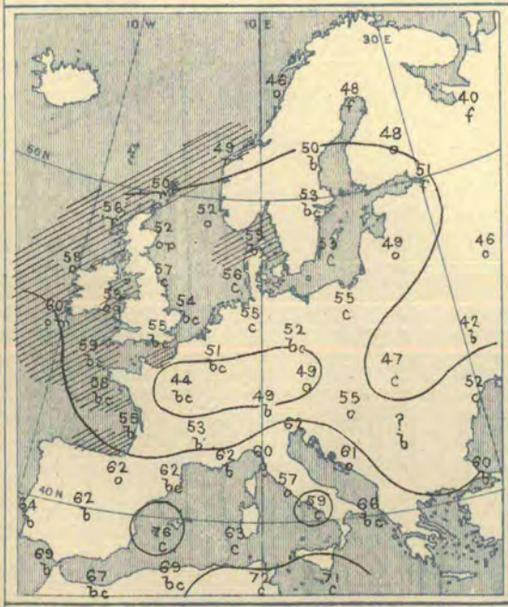
Wind fresh to a moderate gale from the Westward over our Islands and the North Sea; moderate from the same quarter over the Netherlands, and from North-West in Brittany. Moderate from the South-Westward or Southward over Germany and the Baltic; blowing a gale from the South-Westward in the south of Norway, and light or moderate from the South-Eastward in the north of Scandinavia; Easterly in Spain, Northerly or North-Westerly over Algeria and the southern parts of Russia and Italy. Subsequently moderating over Great Britain, but backing to the South-Westward and increasing in Ireland, with a gale at night.

Barometer highest, 30·2 ins. to 30·3 ins., or a little more, in a large anticyclone covering the whole of south-western, southern, and south-eastern Europe, with the greater part of the Mediterranean. Lowest, 29·0 ins. and less in a large and deep depression lying to the west of Norway. Depression subsequently travelling north-eastwards and definite anticyclone forming over France, but new disturbance approaching Ireland, and barometer falling again briskly in the west of our Islands.

Monday, 28th September.

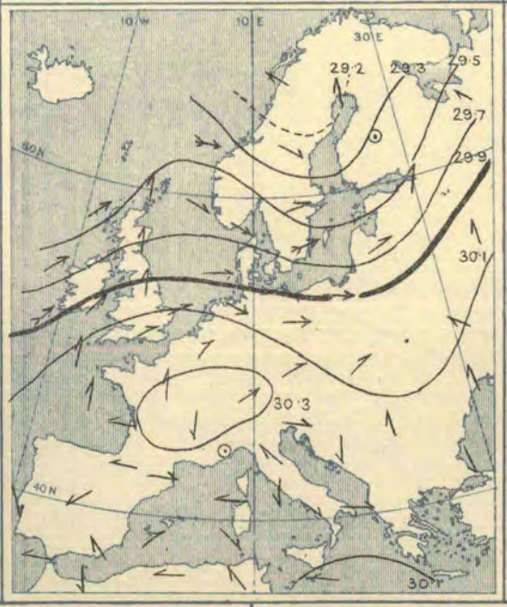
Temperature and Weather.

8 a.m.

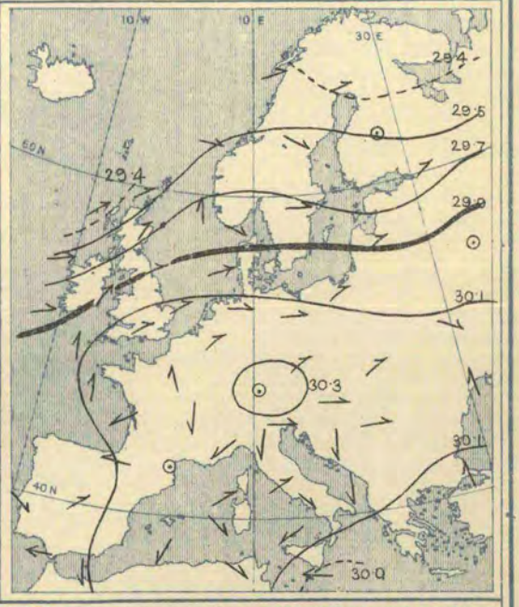


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over the greater part of south-western, southern, and south-eastern Europe (north Italy excepted), and in many parts of England and France; cloudy or overcast and changeable elsewhere, with rain at times in the west and north of our Islands and the northern parts of Scandinavia and Finland. Continuing fine over France and the greater part of England all day, but showery in the west and north of the United Kingdom, as well as over northern Europe and in some parts of Germany; showery at Florence also.

Temperature rising over the United Kingdom, after a rather cold night, and recovering over south-eastern Europe, except at Hermanstadt. Morning readings exceeding 70° at Malta only, and not exceeding 60° at any but the most southern stations and at Valencia Island; below 50° at many of the northern stations and in several parts of France and Germany, and as low as 40° to 48° over northern Europe, 41° to 46° over southern Russia, and 43° to 49° over central France and south Germany. Rising later to between 60° and 68° over the major part of the United Kingdom, to 75° and more in the south of France, to 80° and more at Lisbon and Palermo, and to 86° at Biskra (Algeria).

Wind South-Westerly over the British Isles—moderate in the east and south, strong to a gale in the west and north-west; Westerly over Scandinavia, Denmark, and north Germany, and South-Westerly on the eastern side of the Baltic and over Finland. Very light and variable over the central part of Russia and France; mainly Easterly to North-Easterly over southern Europe. Increasing in force over Irish Sea later, but moderating in Norway and over the Baltic. Not much change elsewhere.

Barometer highest, 30·3 ins. and more to 30·2 ins. in an anticyclone over Germany, France, and Spain; 30·2 ins. and more over the south-east of Russia, and exceeding 30·0 ins. over western, southern, and eastern Europe generally. Lowest, 29·2 ins. and less in a depression over Lapland and the north of Scandinavia, 29·5 ins. and less in another off our extreme north-western coasts and moving north-eastwards. Falling somewhat over western Europe generally during day—most over France, where the anticyclone seemed to be giving way.

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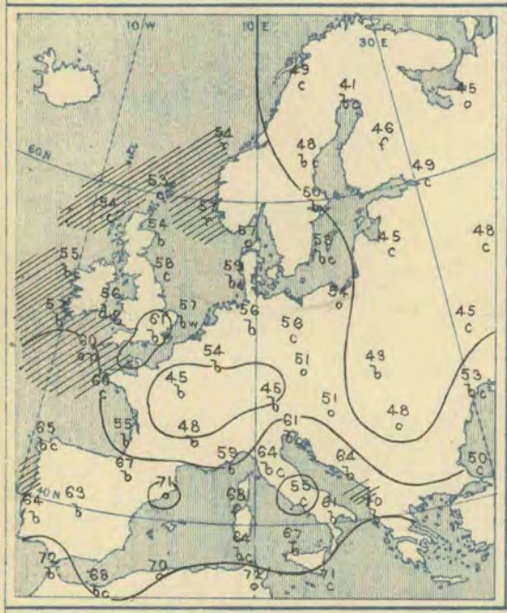
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 29th September.

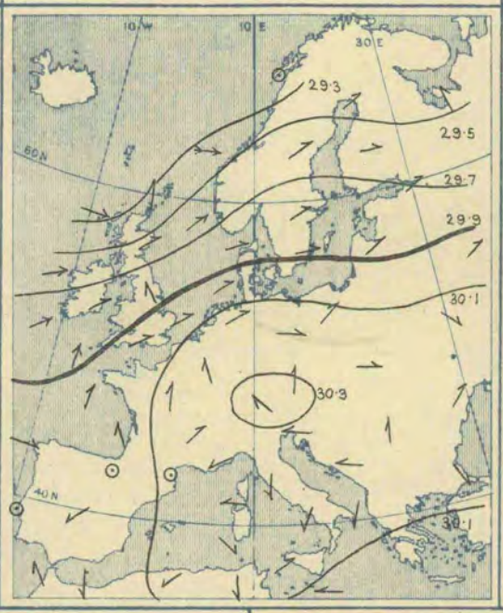
Temperature and Weather.

8 a.m.

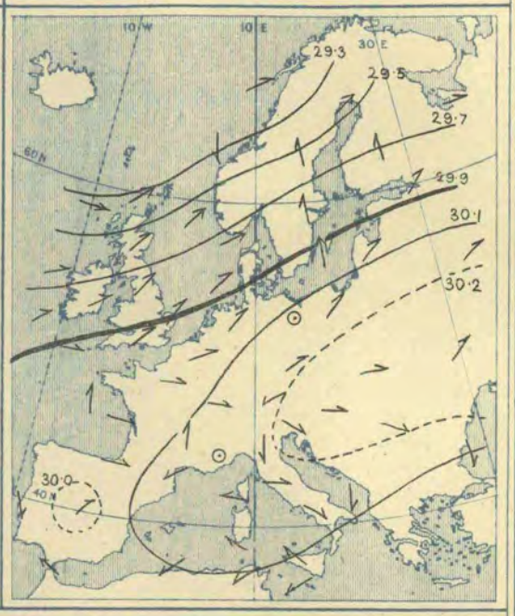


Barometer and Wind.

8 a.m.



6 p.m.



Weather continuing fine over the greater part of south-eastern, southern, and western Europe, including the south-east and east of the British Islands and the coasts of Sweden and Finland; cloudy or overcast elsewhere, foggy in several places, rainy in the west of Norway, Wales, and west of England—temporarily fine (but changeable) in Ireland. Heavy rain later on the north-eastern shores of the North Sea; a smaller amount over Finland, and also on our own western coasts; slight showers in the south of England.

Temperature little changed. Morning readings exceeding 70° at Malta and Algiers only, and exceeding 60° over southern Europe and at some of the English Channel stations; below 60° all over the United Kingdom, and as low as (1) 41° to 46° over Finland and the north of Russsia; (2) 42° to 50° in the south of Russia; (3) 45° at Paris and Munich, 48° Wiesbaden. Rising later to between 65° and 70° over the southern, eastern, and inland parts of England, and to between 70° and 80° in the south-west and south of France, and in Italy, and to 80° and more in several parts of Algeria.

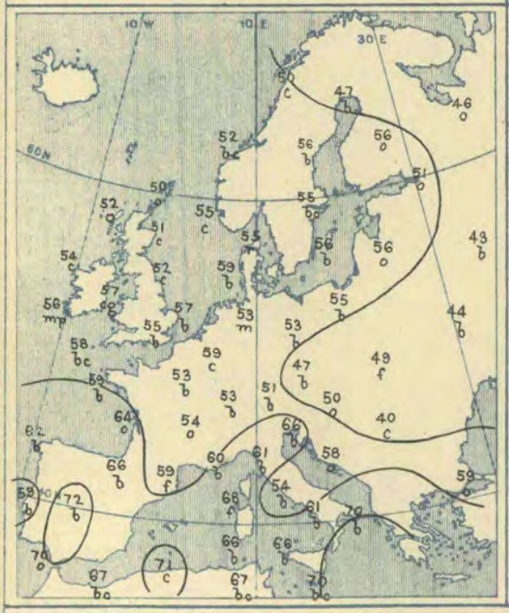
Wind light and mainly Easterly (but variable) over southern Europe; very light and variable over France, Germany, and southern Russia, light to moderate from West and South-West over Germany and the Baltic; South-Westerly, moderate to strong, over the British Islands. A Westerly gale reported at Christiansund, but dying down later and veering Northwards. Wind moderating greatly over the British Islands also, but remaining South-Westerly.

Barometer highest, 30·3 ins. and more to 30·1 ins. in an anticyclone covering central Europe; 30·2 ins. to 30·1 ins. in another over southern and south-eastern Russia; exceeding 30·1 ins. over Portugal also. Lowest, 29·3 ins. and less off the north-west and north of our Islands and the north-west of Norway, and below 29·5 ins. over the White Sea. Changing little and irregularly over the United Kingdom later, but giving way over France. French anticyclone decreasing in intensity later and uniting, in a ridge-like form, with the new one over southern Russia.

Wednesday, 30th September.

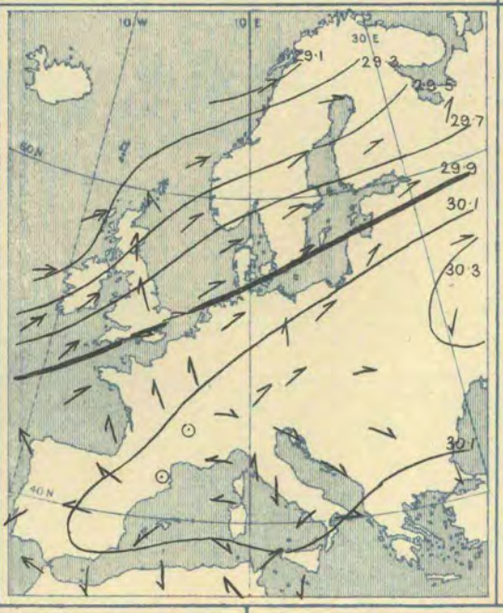
Temperature and Weather.

8 a.m.

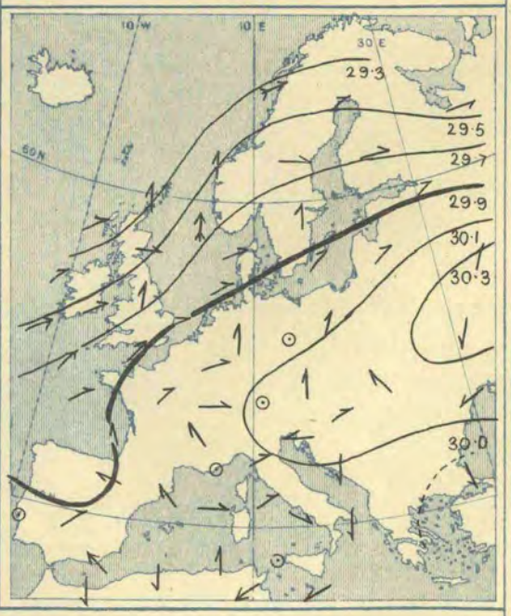


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright, as a whole, over all but the extreme western and north-western districts, exceedingly fine over southern Europe and the Mediterranean. Cloudy and showery in the west and north of our Islands and over Finland, rainy at the Scaw also, foggy at a few of the French stations. Rain later over almost all parts of the British Isles and Brittany, and some in Norway, but amounts small, except at the Welsh stations.

Temperature changing irregularly. Morning readings touching 70° at some stations in Algeria, at Madrid, Barcelona, Malta, and Brindisi, and exceeding 60° at most stations in the south and west of France; varying from 50° to 59° over our Islands, the North Sea, and Baltic; lower elsewhere. Lowest, (1) 43° at Moscow, 46° at Archangel, 47° at Haparanda; (2) 40° at Hermanstadt, 44° at Kiev, 49° at Lemberg. Rising later to between 60° and 67° at most of the English stations, to between 65° and 70° over Germany, to between 70° and 80° in the southern parts of France and Italy, and to 86° at Biskra (Algeria).

Wind still mainly Easterly over the Mediterranean, the south of France, and the Iberian Peninsula; very variable over central and eastern Europe, mainly Southerly and South-Westerly in the north-west and north, and blowing very strongly in the western parts of the British Islands and Scandinavia, and somewhat strongly over the Gulf of Finland. Moderating and veering in the north and north-west of our Islands later, and becoming very variable over the Mediterranean, but increasing from the Southward in the west of Norway.

Barometer highest, 30·3 ins. and more to 30·1 ins. in a high-pressure area over the south of Russia, and extending thence in a ridge-like form across Austria to the south of France and Mediterranean. Lowest, about 29·1 ins. in a depression off the north-west of Norway, and below 29·3 ins. in another approaching our north-west coasts. Continuing to fall over France and England later, but inclined to rise in the north-west of Ireland. Russian anticyclone increasing in height.

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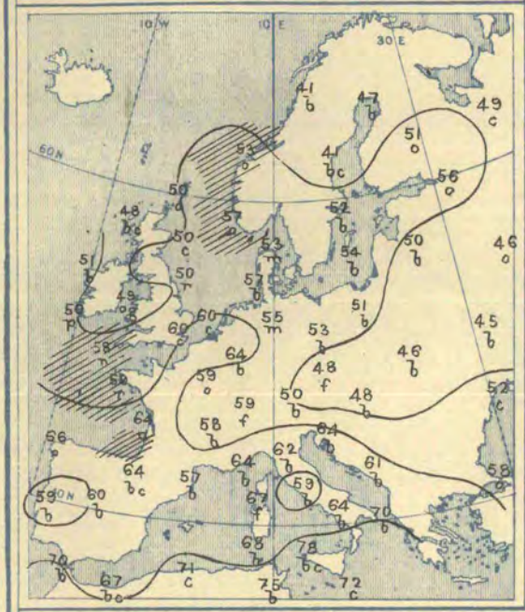
Thursday, 1st October.

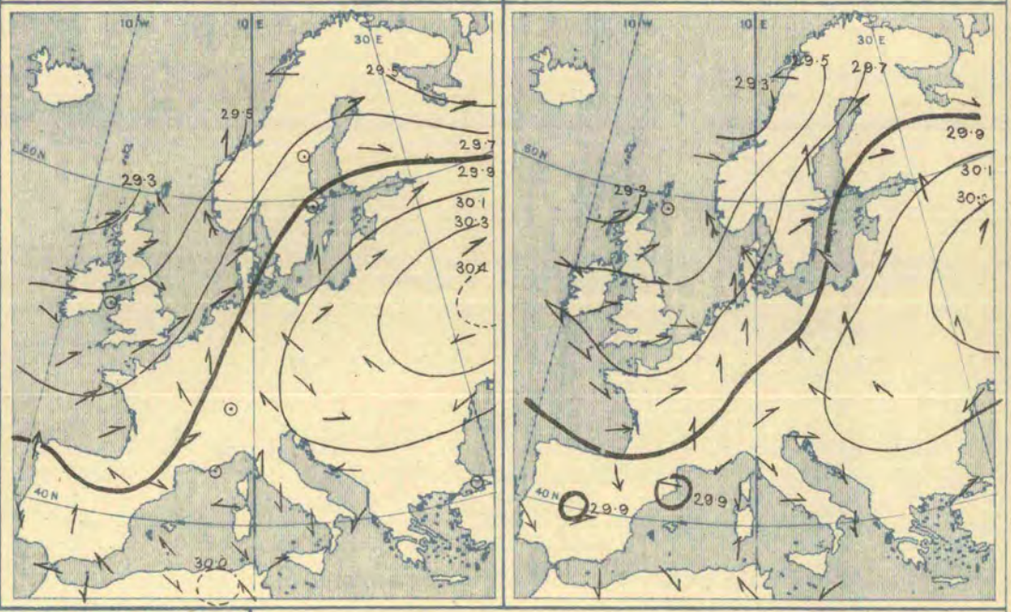
Temperature and Weather. 8 a.m.



Weather in morning exceedingly fine over south-eastern, central, and southern Europe, and the Mediterranean, with local fogs in several places; fine over Sweden and Denmark also, fair over the east of England. Dull and rainy in the north and west of England, showery, but improving, at Valencia Island. Rain falling later, except in the east of Scotland, fall being heaviest in Norway, in the south of England, the Channel, and north of France. Thunder and lightning in south of France, the south of England, and eastern shores of the North Sea.

Temperature fallen fast in the west of our Islands, risen over the southern and south-eastern parts of the Mediterranean, and exceeding 70° at several stations in those regions (78° at Palermo); exceeding 60° over Spain, the greater part of France, and the south of England, lower elsewhere. Lowest, (1) 43° at Kharkov and Warsaw, 44° at Buda-Pesth, 45° at Kiev; (2) 41° at Bodö and Hernösand, 45° at Uleaborg, 49° at Archangel; (3) 47° to 49° over the northern parts of Ireland and Scotland. Rising to between 65° and 68° over the south-east of England in morning, and to between 75° and 85° in the south of France; falling fast again in south of England towards night.

Barometer and Wind. 8 a.m. and 6 p.m.

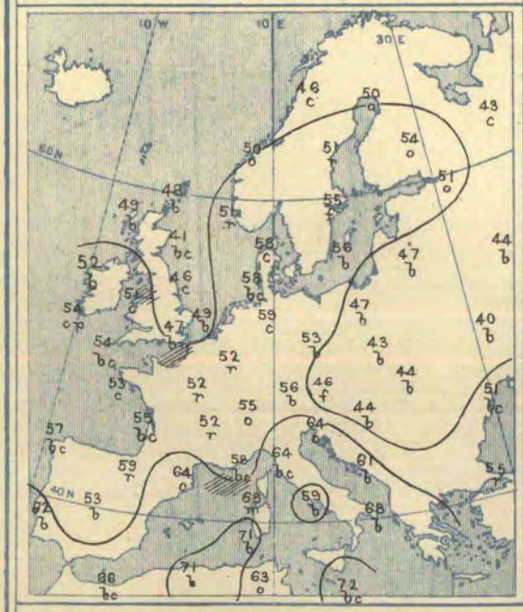


Wind light Easterly on the northern side of the Black Sea, very light and anticyclonic over south-eastern and central Europe, light and variable over the Mediterranean; very fresh from South and South-West over England and the Channel, moderate Southerly over the North Sea, light Southerly to South-Westerly over the Baltic. Veering Westward and North-Westward over the British Islands and north-west of France later, and freshening from Southward in Denmark and the Skager Rack.

Barometer highest, 30·4 ins. and more to 30·1 ins. in an anticyclone covering central and southern Russia, Poland, Austria, and Hungary, and exceeding 30·0 ins. over the Mediterranean and south-east of France. Lowest, 29·3 ins. and less off the north-west of Scotland; below 29·6 ins. over the White Sea, and also in a shallow secondary disturbance approaching the south-west of England from the westward. Disturbances over British Isles moving eastwards later, and barometer rising quickly in their rear. Local disturbance forming over Spain.

Friday, 2nd October.

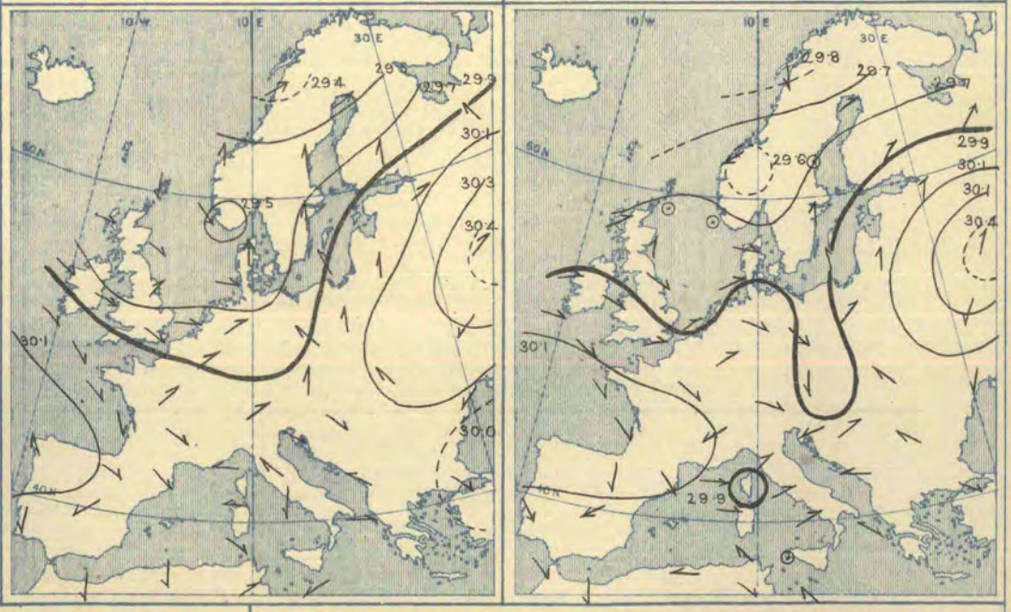
Temperature and Weather. 8 a.m.



Weather in morning fine and bright over Russia, central and south-eastern Europe, as well as at many of the Mediterranean and Spanish stations; fine over several parts of the British Islands also; cloudy and unsettled over the North Sea and Scandinavia, rainy over the greater part of France. Rain later over all the northern and western parts of our Islands, as well as in Norway and Germany; thunderstorms in the south and east of France, and at Yarmouth; amounts of rain very large at Christiansund, Belfort, and Lyons.

Temperature much lower over England and France than of late, but inclined to rise again in Ireland; morning readings exceeding 70° at a few of the Mediterranean stations, much lower elsewhere. Below 50° in the north and east of Great Britain, and lowest of all, (1) 41° at Aberdeen, 45° at Nairn, 46° at Wick and Cambridge; (2) 40° at Cracow and Kief, 41° at Kharkov, 43° at Warsaw, and also at Archangel, 46° at Prague. Rising later to a little above 60° in some parts of England and over the northern half of France to 73° at Nice, 75° at Lisbon, between 75° and 80° in Spain and the south of Italy, and to between 85° and 90° over Algeria.

Barometer and Wind. 8 a.m. and 6 p.m.



Wind light and anticyclonic over Russia, Poland, and Austria-Hungary, light and variable over the Mediterranean and Spain, moderate to light from between North-West and West over the United Kingdom, from West in the Netherlands and Holstein, from South and South-South-East over the Baltic and the Gulf of Bothnia. Backing to South-West on our north-west coasts later, but veering Northwards in the north-west of Norway.

Barometer highest, (1) 30·4 ins. and more to 30·1 ins. in an anticyclone over Russia and Hungary (2) 30·1 ins. and more in another lying over the north-west of Spain and neighbouring parts of the Atlantic. Lowest, 29·4 ins. and less in a depression over the west of Lapland, and below 29·5 ins. in a secondary over the south of Norway; below 29·9 ins. in a "hollow" over central Europe, and below 30·0 ins. over the western portion of the Mediterranean. Rising over western Europe during day as the Spanish anticyclone spread north-eastwards to the British Islands; the Mediterranean disturbance moving northwards later, and the hollow over central Europe undergoing great modification.

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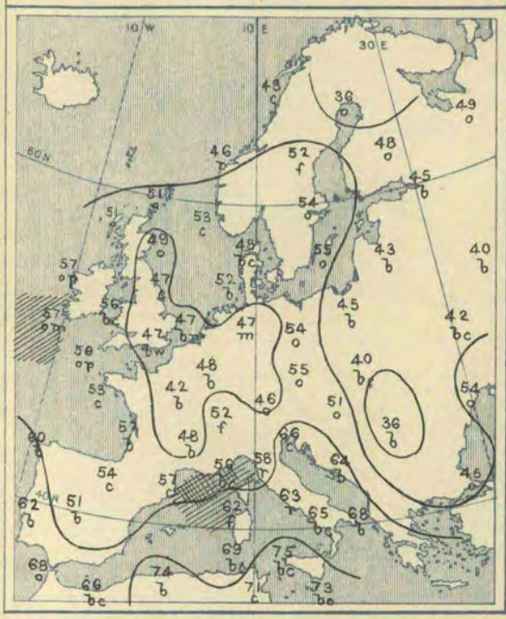
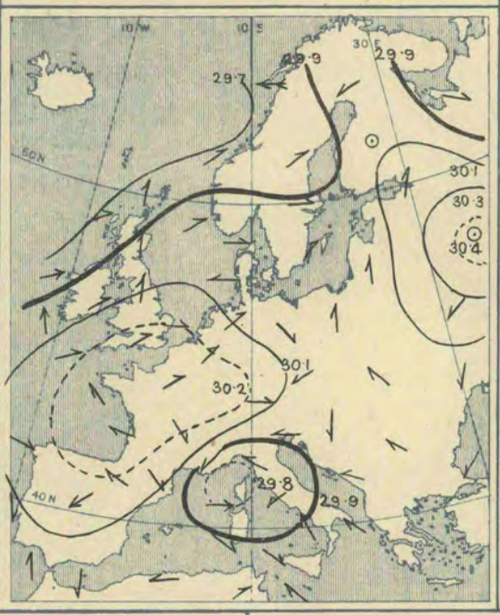
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 3rd October.

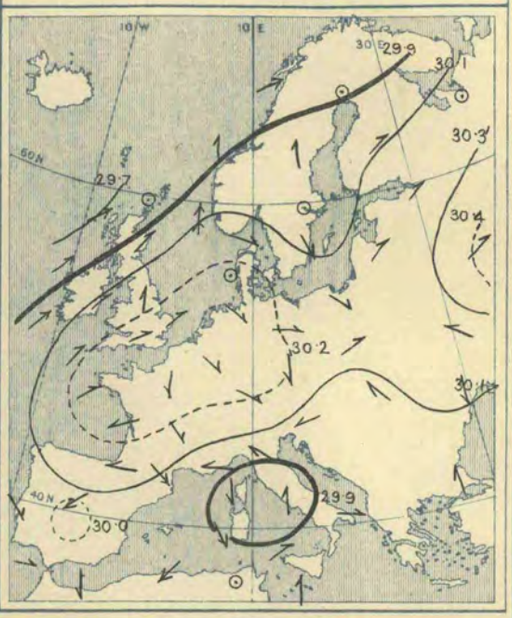
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright over Spain, France, and England, with fog and heavy dew in many places, fine over Russia also; cloudy elsewhere, with rain in several parts of Ireland and Norway. Rain later at several of our western and north-western stations, in Germany, Finland, and Norway, and a very heavy fall over the north of Italy and at Trieste.

Temperature distribution somewhat unusual; morning readings still exceeding 70° over Sicily, Malta, and on the Algerian coasts, and exceeding 60° over some of the extreme southern parts of Europe; much lower in other places, and below 50° over the inland parts of France, England, and Russia. Lowest of all, (1) 40° at Moscow, Warsaw, and Cracow, 42° at Kief and Lemberg; (2) 39° at Limoges, 42° at Paris, 48° at Brussels; (3) 43° at Dungeness, Oxford, and Loughborough, 47° in London and at Yarmouth. Rising later to 60° and more over England, to 70° and more over many parts of southern Europe and on the Algerian coast.

Wind very variable and anticyclonic over France and Russia, North-Easterly over Spain, Easterly over the Bay of Biscay, South-Westerly in the English Channel, Southerly over the greater part of our Islands, and somewhat strong at the Irish stations; Easterly wind prevalent over Lapland, and blowing hard at Bodö. A Southerly gale felt at Belmullet and Stornoway in following night. Blowing strongly on the Norwegian coast also. A cyclonic circulation of fresh breezes over the north-eastern part of the Mediterranean all day.

Barometer highest, 30·4 ins. and more to 30·1 ins. in an anticyclone over central Russia; 30·2 ins. and more to 30·1 ins. in another over France, the north of Spain, the Bay of Biscay, and greater part of England. Lowest, 29·9 ins. and less over the north of Russia and White Sea; 29·7 ins. and less off the north-west of Norway and extreme north-west of Scotland; 29·8 ins. and less in a depression over the Gulf of Genoa and neighbouring parts of Mediterranean. Latter disturbance moving eastwards later, and a new one approaching the Irish coast at night.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟿ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During the greater part of this week the weather has been fine and bright over eastern, central, and western Europe, but showery and unsettled in the extreme north and north-west. In the former districts pressure has been high, and, as a rule, the high-pressure areas have stretched north-westwards to the southern and eastern parts of our Islands. In the north and north-west, however, low-pressure areas have followed one another in quick succession, and at the beginning of October a secondary "hollow" passed directly over England, the north of France, and the North Sea, causing a temporary extension, over the districts named, of the rainy weather, which had previously been confined to the more northern countries. At the close of the week fine, anticyclonic conditions were again prevalent over France and England, but a depression over the north-eastern parts of the Mediterranean was causing rough rainy weather in the north of Italy, accompanied by North-Easterly winds.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 230.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	22·5	?	28	?	NEWQUAY	31·8	?	39	?
OSWALDKIRK (Yorkshire)	19·1	?	24	?	TORQUAY	38·2*	?	47*	?
WORKSOP	27·6	+ 5·8	34	+ 7	ARLEY COTTAGE (County Cavan)	24·8	?	31	?
THURCASTON (Leicestershire)	34·0	+12·8	42	+15	GUERNSEY	49·3*	?	61*	?
EASTBOURNE	62·2	?	77	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 40.] *Third Series.* WEEK ENDING SATURDAY, 10TH OCTOBER, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 236.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH -	61	41	56·6	47·7	52·0	4 above.	70	+27	0	− 5	1889	+224	621	+ 72
1. SCOTLAND, EAST -	65	39	57·3	46·8	51·9	4 above.	69	+17	0	− 5	2110	− 17	670	+ 95
2. ENGLAND, N.E. - -	62	39	58·4	46·8	52·6	2 above.	74	+18	0	− 3	2210	− 61	593	+ 92
3. ENGLAND, EAST -	65	36	61·6	46·8	54·0	3 above.	84	+24	0	− 4	2561	− 71	689	+123
4. MIDLAND COUNTIES	65	36	59·2	45·1	52·0	2 above.	70	+12	0	− 6	2499	− 83	668	+107
5. ENGLAND, SOUTH -	68	35	61·3	48·7	54·8	3 above.	90	+22	0	− 3	2748	− 95	565	+146
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST -	61	37	57·5	47·6	52·4	3 above.	73	+19	0	− 6	2305	+127	462	+ 43
7. ENGLAND, N.W. -	63	41	58·7	48·1	53·3	3 above.	79	+22	0	− 4	2449	+ 67	449	+ 33
8. ENGLAND, S.W. -	64	36	59·0	48·8	53·8	2 above.	83	+16	0	− 3	2553	− 77	434	+117
9. IRELAND, NORTH -	62	41	56·9	47·1	51·9	2 above.	69	+12	0	− 4	2411*	+ 86	391	+ 28
10. IRELAND, SOUTH -	63	36	58·0	48·3	53·0	2 above.	77	+13	0	− 4	2553	+ 35	309	+ 30
— CHANNEL ISLANDS -	61	48	59·6	52·0	55·7	1 above.	96	+ 8	0	0	2939	− 7	162	+ 40

Rainfall.

DISTRICTS. (See p. 236.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH -	5	19	7 more.	186	+ 4	39·1	+ 4·2
1. SCOTLAND, EAST -	5	12	5 more.	138	−12	22·3	− 1·6
2. ENGLAND, N.E. - -	4	10	4 more.	133	− 5	17·9	− 1·8
3. ENGLAND, EAST -	4	9	3 more.	139	+ 2	18·8*	− 0·7
4. MIDLAND COUNTIES-	6	19	13 more.	138	+ 6	21·1	− 0·7
5. ENGLAND, SOUTH -	6	21	14 more.	134	+ 5	21·9	+ 1·4
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST -	6	25	14 more.	151	− 7	31·7	− 4·5
7. ENGLAND, N.W. - -	5	7	2 less.	134	−10	25·1	− 0·5
8. ENGLAND, S.W. - -	6	24	14 more.	142	− 6	29·4	0·0
9. IRELAND, NORTH -	6	17	8 more.	167	− 4	24·8	− 2·4
10. IRELAND, SOUTH -	6	22	14 more.	149	− 6	27·0	− 2·1
— CHANNEL ISLANDS -	6	21	13 more.	141	−15	24·2	+ 0·7

Bright Sunshine.

DISTRICTS. (See p. 236.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH -	12	−14	15	−18	1025	− 7	27	− 1
1. SCOTLAND, EAST -	20	+ 8	26	+10	1149	− 51	31	− 1
2. ENGLAND, N.E. - -	14	− 2	24	− 1	1037	− 14	29	− 1
3. ENGLAND, EAST -	27	+ 2	35	+ 4	1252	− 82	34	− 2
4. MIDLAND COUNTIES-	23	0	31	0	1184	− 8	32	0
5. ENGLAND, SOUTH -	23	− 3	30	− 4	1359	+ 63	37	+ 2
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST -	25	+ 3	34	+ 7	1220	+ 31	33	+ 1
7. ENGLAND, N.W. - -	15	− 5	19	− 8	1109	− 70	30	− 2
8. ENGLAND, S.W. - -	30	+ 4	38	+ 6	1410	+ 4	38	0
9. IRELAND, NORTH -	24	+ 5	32	+ 8	1152	+ 73	31	+ 2
10. IRELAND, SOUTH -	28	+ 5	37	+ 6	1267	+ 9	34	0
— CHANNEL ISLANDS -	31	0	39	0	1727	+ 81	48	+ 3

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather at the commencement of the week was fine over all the more eastern and south-eastern parts of the Kingdom, but rainy, unsettled conditions still prevailed in the west and north-west, and soon spread over the entire Kingdom. The unsettled weather then continued, with the exception of a few bright intervals, for the remainder of the period. Thunder and lightning were experienced in many places during the night of the 7th to 8th.

Temperature has again been above the mean, the excess having ranged from 1° in the "Channel Islands" to 2° or 3° in nearly all other districts, and to 4° in the north and east of Scotland. The highest of the maxima occurred at most stations on the 4th, and ranged from 68° in "England S." to 61° in "Scotland N." and "W." as well as in the "Channel Islands." The lowest of the minima were registered either on the 4th or 5th, and varied between 35° in "England S." to 41° in some of the north-western districts, and to 48° in the "Channel Islands." Frost was experienced on the grass on some occasions.

Rainfall has been a little less than the mean in "England N.W.," but in all other parts of the Kingdom it has been more than the normal, the excess over all but the north-eastern parts of Great Britain having been very large.

Bright Sunshine has varied considerably in different parts of the Kingdom, but, as a whole, has not differed materially from the mean. The percentage of the possible amount of duration ranged from 15 in "Scotland N." and 19 in "England N.W.," to between 35 and 39 in most of the southern and south-western districts.

Barometer and Wind.—During the whole of the week depressions—some of them deep—travelled north-eastwards outside our extreme western and north-western coasts, and during the latter part of the period secondary systems passed in a similar direction immediately over England. South-Easterly to South-Westerly winds consequently prevailed very generally, occasionally blowing with the force of a gale on our extreme western and northern coasts, and of a strong squally breeze elsewhere.

* This value has been altered somewhat owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 235 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	55	42	54·4	46·3	50·2	+ 3·3	57	0	4	0·72	−0·21	*	*	*	*
	Stornoway	57	46	54·3	47·9	51·0	+ 3·6	63	0	7	5·10	+4·02	7·9	−13·6	10	−18
	Wick	60	46	57·7	49·7	53·6	+ 5·7	81	0	2	0·20	−0·46	*	*	*	*
	Lairg ⚓	61	43	57·7	47·2	52·3	+ 4·9	72	0	3	0·32	−0·58	*	*	*	*
	Glencarron ⚓	59	42	56·8	46·4	51·5	+ 4·6	67	0	7	2·57	+0·70	*	*	*	*
	Fort Augustus ⚓	60	41	58·1	46·9	52·3	+ 4·1	72	0	7	0·77	−0·16	10·3	?	14	?
	Fort William ⚓	60	45	57·4	49·2	53·2	+ 4·2	78	0	6	3·41	+1·65	16·7	?	22	?
1. SCOTLAND, E.	Nairn	62	42	59·4	48·1	53·6	+ 5·2	81	0	3	0·15	−0·41	*	*	*	*
	Aberdeen	59	45	56·0	48·9	52·4	+ 3·6	73	0	4	0·99	+0·33	29·4	+ 7·3	39	+10
	Braemar ⚓	56	43	53·4	45·7	49·4	+ 4·5	52	0	6	2·15	+1·25	10·2†	? †	13†	?†
	Ochtertyre ⚓	65	42	58·6	45·9	52·1	+ 4·1	71	0	7	2·54	+1·64	*	*	*	*
	Leith	63	46	60·0	48·3	54·0	+ 4·0	84	0	5	0·54	+0·11	*	*	*	*
	Marchmont ⚓	59	39	56·4	43·6	49·8	+ 2·2	55	0	5	0·67	−0·05	14·8	?	19	?
2. ENGLAND, N.E.	Alnwick Castle	59	39	56·9	44·9	50·7	+ 1·9	61	0	4	1·70	+1·08	*	*	*	*
	Durham	61	39	59·0	45·9	52·3	+ 3·3	72	0	5	0·83	+0·19	17·6	− 2·4	23	− 3
	Shields	62	42	58·7	45·3	51·8	+ 1·9	69	0	4	0·60	+0·02	*	*	*	*
	Scarborough ⚓	59	44	57·1	48·9	52·9	+ 2·5	76	0	5	1·47	+0·79	*	*	*	*
	York	62	41	59·4	44·6	51·8	+ 1·7	69	0	4	0·90	+0·30	20·1	+ 0·7	26	0
	Spurn Head	62	48	59·1	50·9	54·9	+ 3·0	90	0	4	0·55	+0·05	*	*	*	*
3. ENGLAND, E.	Hillington ⚓	63	39	61·8	47·3	54·3	+ 3·7	86	0	4	0·60‡	+0·01‡	25·7‡	+ 1·0‡	33‡	+ 4‡
	Yarmouth	63	45	60·4	50·3	55·2	+ 3·8	92	0	3	0·65	−0·01	*	*	*	*
	Geldeston	65	36	62·9	45·7	54·1	+ 2·5	85	0	3	0·48	−0·12	32·8	+ 5·8	43	+ 8
	Cambridge	65	38	62·7	45·6	53·9	+ 2·3	83	0	3	0·84	+0·33	24·8	− 2·2	32	− 1
	Rothamsted	63	36	60·0	45·1	52·3	+ 2·4	72	0	5	1·91	+1·26	25·2	?	33	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	62	39	59·6	43·6	51·4	+ 1·5	66	0	5	1·57	+0·95	*	*	*	*
	Loughborough	64	41	61·4	46·0	53·5	+ 2·9	81	0	5	2·16	+1·51	*	*	*	*
	Stamford (Ketton Hall)	64	36	61·0	45·6	53·1	+ 2·6	78	0	5	1·49	?	*	*	*	*
	Cheadle ⚓	60	42	57·3	45·6	51·3	+ 2·5	65	0	6	1·65	+0·87	*	*	*	*
	Churchstoke ⚓	61	41	59·3	44·7	50·3	+ 1·4	58	0	6	1·32	+0·57	22·7	+ 0·1	29	0
	Hereford ⚓	65	41	60·1	47·0	53·4	+ 3·2	80	0	6	2·33	+1·71	*	*	*	*
	Cirencester	60	37	58·7	44·0	51·1	+ 1·3	64	0	6	3·18	+2·48	24·3	+ 2·9	32	+ 2
	Oxford	63	36	59·4	44·6	51·8	+ 0·7	69	0	6	1·69	+1·11	24·3	− 0·4	32	0
5. ENGLAND, S.	London	68	39	63·3	46·0	54·4	+ 2·2	87	0	5	1·14	+0·54	16·0†	− 3·7†	21†	− 4†
	Strathfield Turgiss ⚓	65	35	61·3	43·8	52·3	+ 1·5	72	0	6	2·25	+1·65	*	*	*	*
	Dungeness	64	40	62·1	51·3	56·5	+ 3·2	102	0	5	1·09	+0·37	*	*	*	*
	Hastings (St. Leonards)	63	47	61·2	51·3	56·2	+ 2·8	99	0	4	1·37	+0·57	28·0	− 2·0	36	− 3
	Southampton	67	42	61·3	49·4	55·2	+ 2·5	92	0	6	2·90	+2·18	23·4	− 4·6	30	− 5
	Hurst Castle	63	48	60·9	52·6	56·6	+ 3·3	102	0	7	2·44	+1·72	*	*	*	*
	Stowell ⚓	62	41	59·0	46·2	52·4	+ 2·0	73	0	6	3·27	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	61	41	58·7	46·1	52·2	+ 3·1	71	0	7	4·61	+2·87	*	*	*	*
	Glasgow	60	45	57·6	48·7	53·0	+ 4·4	77	0	6	0·94	+0·09	24·0	+ 7·2	32	+10
	Ardrossan	?57	50	?57·0	51·6	?54·2	?+ 3·9	?85	0	4	1·03	+0·14	*	*	*	*
	Glenlee ⚓	58	37	56·9	45·0	50·8	+ 2·9	62	0	7	3·73	+2·45	*	*	*	*
	Douglas (Isle of Man)	58	38	57·3	46·7	51·8	+ 1·8	69	0	6	2·39	+1·48	26·8	+ 1·4	35	+ 2
7. ENGLAND, N.W.	Newton Reigny	60	41	57·0	46·2	51·4	+ 2·5	66	0	6	1·04	+0·26	12·1	− 9·7	16	−12
	Stonyhurst	60	45	57·5	48·4	52·8	+ 3·2	76	0	6	0·62	−0·57	23·1	+ 2·9	30	+ 3
	Blackpool ⚓	63	43	60·7	46·9	53·6	+ 3·5	81	0	3	0·34	−0·58	6·0	−15·0	8	−20
	Manchester	62	43	58·5	48·6	53·4	+ 3·6	80	0	6	1·00	+0·10	*	*	*	*
	Liverpool Obsy. (Bidston)	61	43	58·6	47·3	52·8	+ 1·6	76	0	6	0·35	−0·45	*	*	*	*
	Llandudno ⚓	62	43	60·0	48·3	54·0	+ 1·7	84	0	4	0·69	−0·15	17·0	− 1·7	22	− 2
	Holyhead	60	49	58·7	51·3	54·9	+ 2·2	90	0	6	1·13	+0·23	*	*	*	*
8. ENGLAND, S.W.	Llandovery	64	37	60·9	45·0	52·7	+ 1·9	75	0	7	2·44	+1·25	*	*	*	*
	Pembroke	59	50	58·4	52·9	55·6	+ 2·7	95	0	6	1·61	+0·70	35·0	+10·0	45	+12
	Arlington (N. Devon)	59	42	57·4	47·0	52·1	+ 1·1	71	0	6	1·72	+0·50	*	*	*	*
	Cullompton ⚓	63	36	60·4	44·7	52·3	+ 1·1	72	0	6	3·23	+2·31	27·6	+ 4·5	35	+ 5
	Falmouth	60	46	58·8	49·2	53·9	+ 0·5	83	0	6	2·52	+1·28	26·9	+ 0·3	34	0
	Plymouth	61	43	59·6	?50·6	?55·0	?+ 2·0	?91	0	6	2·69	+1·88	29·1	+ 2·9	37	+ 7
	Prawle Point	60	49	57·6	52·4	54·9	+ 1·7	90	0	6	2·42	+1·65	*	*	*	*
9. IRELAND, N.	Malin Head	57	45	55·3	46·3	50·7	+ 1·5	61	0	6	1·14	?	*	*	*	*
	Londonderry	59	43	57·2	46·8	51·9	+ 2·2	69	0	6	1·29	+0·36	*	*	*	*
	Mullaghmore	59	47	56·6	49·3	52·8	+ 1·1	76	0	6	2·36	+1·19	*	*	*	*
	Belmullet	57	48	55·0	49·7	52·3	− 0·6	72	0	7	3·10	?	*	*	*	*
	Markree Castle	58	43	?56·0	46·5	?51·1	+?2·0	?64	0	7	1·77	+0·93	22·0	+ 2·6	29	+ 3
	Brookeborough	59	43	57·0	46·7	51·7	+ 4·6	68	0	6	1·83	+0·92	*	*	*	*
	Armagh	61	41	58·3	46·3	52·1	+ 3·1	71	0	4	1·08	+0·41	28·8	+ 9·3	37	+12
	Donaghadee	61	44	58·7	49·1	53·8	+ 3·4	83	0	5	1·56	+0·86	*	*	*	*
	Edgeworthstown	62	41	58·3	43·0	50·4	+ 1·9	59	0	5	0·91	+0·23	*	*	*	*
10. IRELAND, S.	Dublin	63	46	59·2	49·4	54·2	+ 4·1	85	0	4	0·91	+0·30	33·1	+ 8·3	43	+11
	Parsonstown	61	42	58·1	47·0	52·4	+ 2·8	73	0	4	1·69	+0·99	25·9	+ 3·4	34	+ 5
	Kilkenny	60	36	58·0	46·0	51·8	+ 1·0	69	0	7	1·53	+0·90	*	*	*	*
	Waterford	62	43	59·3	48·3	53·6	+ 1·3	81	0	5	2·06	+1·20	*	*	*	*
	Roche's Point	59	47	57·3	50·3	53·5	+ 1·1	81	0	6	2·32	+1·40	*	*	*	*
	Valencia	59	44	57·0	50·0	53·4	+ 0·4	80	0	7	4·86	+3·66	26·3	+ 3·4	34	+ 3
	Killarney	62	45	57·8	48·4	53·0	+ 1·4	77	0	7	3·14	?	*	*	*	*
	Foynes	61	43	57·3	46·7	51·8	+ 1·4	69	0	6	0·88	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	61	48	59·6	52·0	55·7	+ 0·8	96	0	6	2·23	+1·43	*	*	*	*
	Jersey									6	1·99	+1·09	30·7	0·0	39	− 2

Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

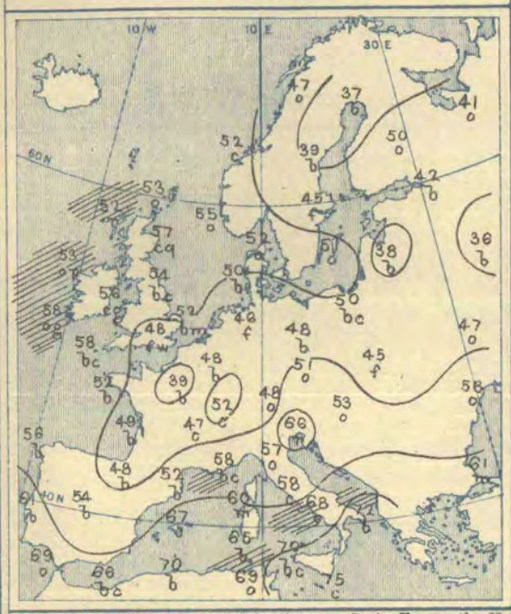
‡ Errata.—The corresponding figures in last week's Report should read "0·72," "+0·12," "43·3," "+19·0," "53," "+23."

III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 4th October.

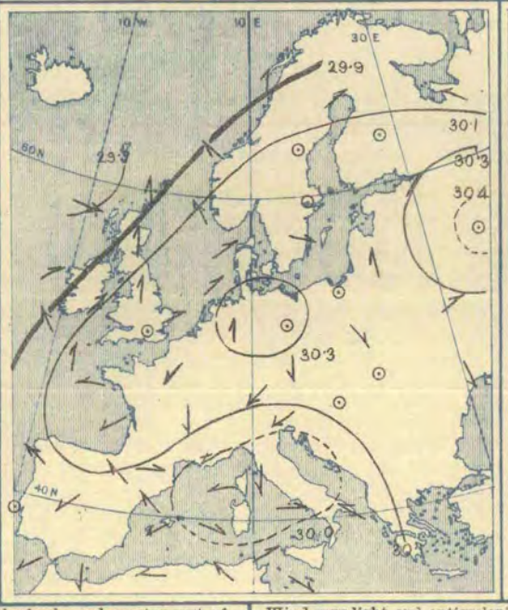
Temperature and Weather.

8 a.m.

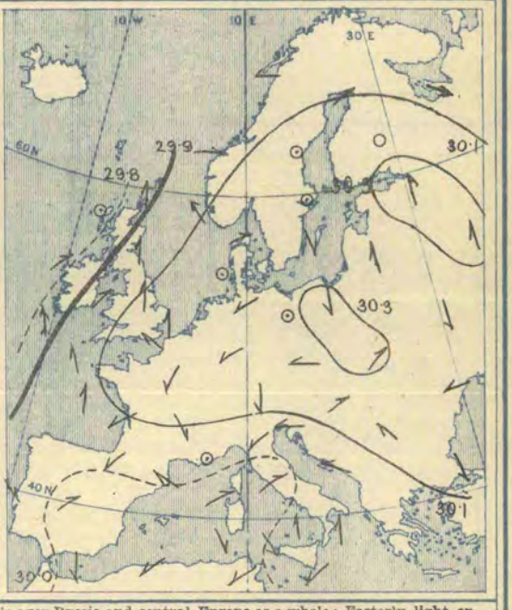


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over Spain, France, the Netherlands, and greater part of England, as well as over many parts of Sweden, Russia, and Germany; cloudy over the Mediterranean; dull and unsettled in the west and north of the British Islands and in Norway. Rain reported at Breslau and Memel also. Heavy rain later in the extreme west and north-west of our Islands (1·6 ins. at Valencia Island, 1·5 ins. at Stornoway and Mullaghmore, 0·8 in. at Belmullet), none over the more eastern parts of our Islands, but a little in Sweden. Large quantities of rain falling also on the shores of the Adriatic (1·1 ins. at Lésina and Brindisi).

Temperature changing irregularly. Morning readings still exceeding 70° at Malta, Palermo, and Brindisi, and 50° to 58° in Ireland and Scotland, much lower elsewhere; below 50° over the inland parts of England, France, and Russia, and as low as (1) 37° to 39° over the northern parts of Sweden; (2) 36° at Moscow, 38° at Riga, 42° at Warsaw; (3) 39° at Paris, 47° at Lyons; and (4) 46° at Oxford, 47° at Cambridge, 48° in London and at York. Rising to 60° and more over England later, and to 70° and more over southern Europe, the highest readings of all being 82° at Palermo and 78° at Madrid.

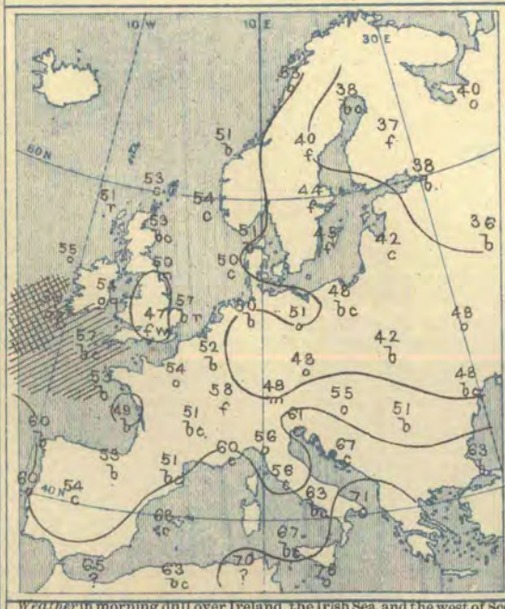
Wind very light and anticyclonic over Russia and central Europe as a whole; Easterly, light, on the northern shores of the Mediterranean; Easterly to South-Easterly, moderate, over the Bay of Biscay, Southerly over the greater part of the United Kingdom and Norway, and fresh to strong at the western stations. Increasing to a gale at Valencia Island later, but remaining light over our eastern counties. No important change taking place on Continent.

Barometer highest, 30·3 ins. and more to 30·2 ins. in an anticyclone over Germany and France, and 30·4 ins. in another over Russia. Lowest, 29·7 ins. and less off the coast of Finmark and to the north-westward of our Islands, 30·0 ins. and less over Corsica, Sardinia, and northern Italy. Falling slowly later in nearly all parts of western and central Europe, and depressions travelling northwards outside our extreme western coasts.

Monday, 5th October.

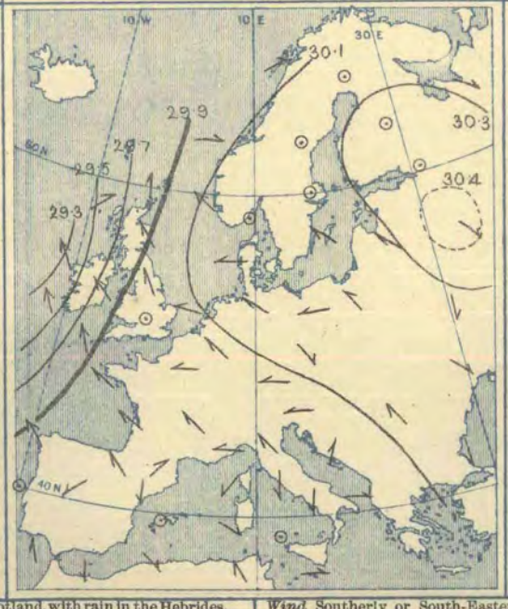
Temperature and Weather.

8 a.m.

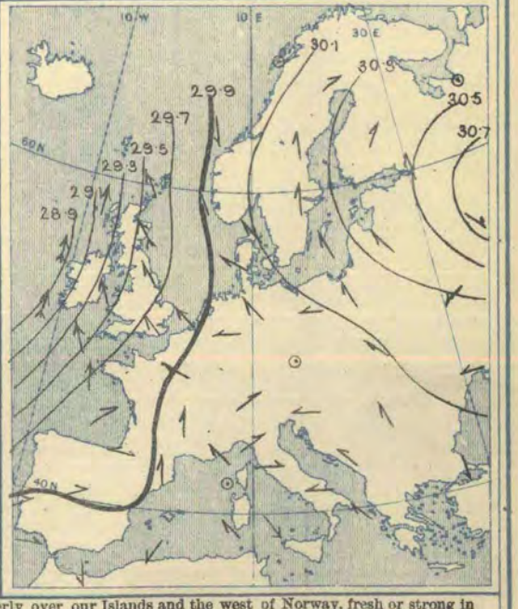


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning dull over Ireland, the Irish Sea, and the west of Scotland, with rain in the Hebrides. Dull also over the greater part of Germany, Austria, and the south of Italy, but fine in most other countries. Foggy over the inland parts of England, as well as over Finland, Sweden, and the Baltic Provinces. Dull weather spreading later to all parts of the United Kingdom, and very heavy rain falling on our western coasts, the largest amounts being 1·7 ins. at Valencia Island and 1·2 ins. at Roche's Point. Thunderstorm, with heavy rain (1·5 ins.), occurring at Palermo, and lightning seen in evening at some of the French stations.

Temperature highest, 76° at Malta, 71° at Brindisi and La Calle, and 68° at Palma and Algiers; above 60° over the Adriatic and Mediterranean generally, as well as on the coasts of the Iberian Peninsula; above 55° in the south and south-west of our Islands. Lowest, (1) 36° at Moscow, 37° at Uleaborg and Kuopio, and 38° at Haparanda and St. Petersburg (below 45° at most of the Russian and Swedish stations); (2) 42° at Oxford, 44° at Loughborough, and 46° at York. Daily maxima below 60° in Ireland and Scotland, but thermometer rising to between 60° and 65° over the inland parts of England. Exceeding 70° in most parts of southern Europe, the highest readings of all being 82° at Palermo and 78° at Madrid.

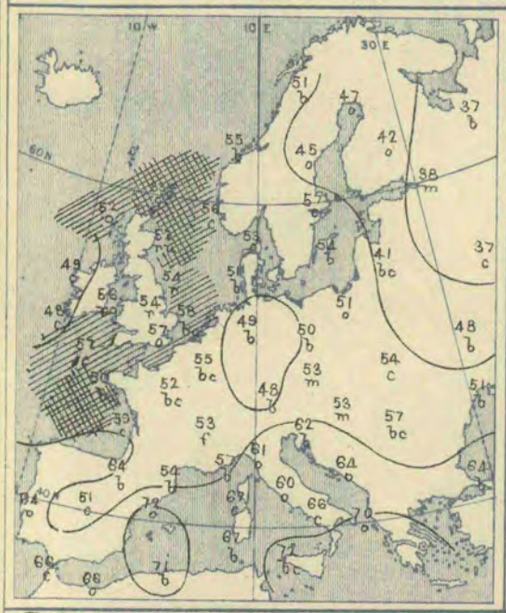
Wind Southerly or South-Easterly over our Islands and the west of Norway, fresh or strong in force on our western coasts, with a gale at Valencia Island. Light from the Eastward or South-Eastward over the Baltic, Germany, the Netherlands, France, and Spain. Calm in Sweden, light and variable in Russia, and also in Algeria, chiefly Northerly in Italy. Subsequently increasing to a strong or whole gale from the South-Eastward or Southward in all the more western and northern parts of the United Kingdom; light winds from the same quarter setting in over northern and central Europe.

Barometer highest, 30·4 ins. and upwards over central Russia; 30·0 ins. and upwards in a large anticyclone covering the whole of northern, eastern, and central Europe, and extending southwards over Italy and the eastern parts of the Mediterranean. Lowest, 29·4 ins. and less in a large and deep depression lying to the westward of our Islands. Depression subsequently advancing north-eastwards, barometer falling briskly in all parts of western Europe, and rapidly on our western coasts, and gradients becoming very steep over Ireland and the neighbouring Channels.

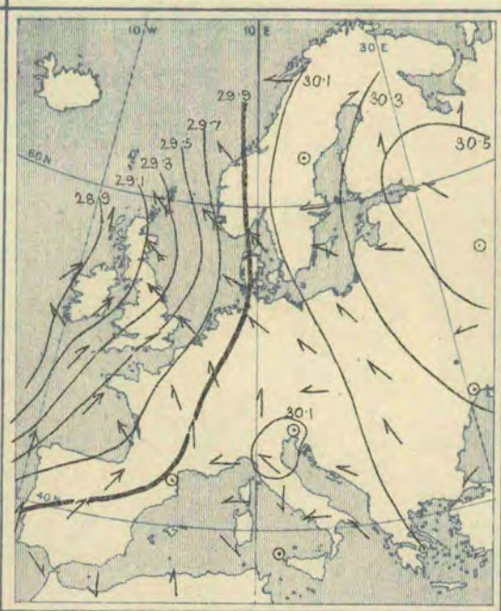
Judd & Co. Ltd. Lith. 73 & 75, Farringdon Rd & Doctors Commo

Tuesday, 6th October.

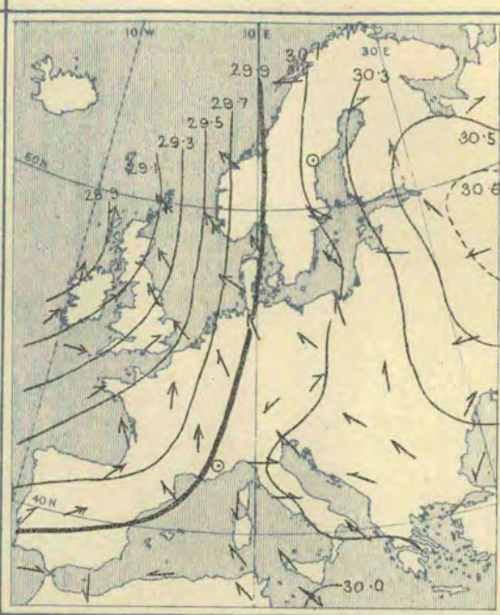
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather dull and rainy over the greater part of the United Kingdom, but fair in the west of Ireland and the extreme south-east of England; cloudy also at several of the Scandinavian stations and in the western parts of the Spanish Peninsula, but fine on the Continent generally. Heavy rain falling during day over the central and southern parts of England, and also in the north-west of France, the amounts exceeding an inch in many places and reaching 1·4 ins. at Lorient. Lightning seen at some of the western stations at night.

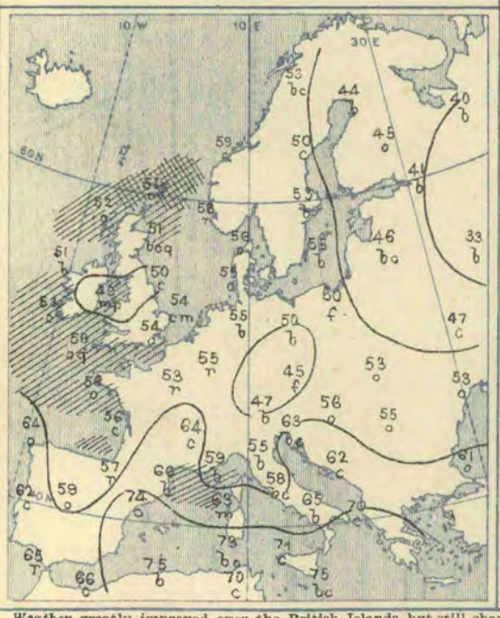
Temperature highest, 72° at Barcelona and Palermo, 71° at Algiers, and 70° at Brindisi; above 60° over the Mediterranean and Adriatic generally, as well as on the shores of the Bay of Biscay; above 55° at many of the English stations. Lowest, 37° at Archangel, Uleaborg, and Moscow, 38° at St. Petersburg and Helsingfors, and 41° at Riga. Daily maxima very little above 60° in any part of the United Kingdom, and below 55° at many of the Irish stations, but thermometer exceeding 70° in most parts of France and southern Europe, the highest readings of all being 82° at Malta and 81° at Biarritz, Perpignan, and Palermo.

Wind strong from the South-Eastward or Southward over the greater part of western Europe, with a gale in the north and east of Scotland, but light or moderate in force at the Irish stations. Light from the South-Eastward over most of the northern and central countries, calm in the south of Russia, variable in Italy, and also in Algeria. Subsequently veering to the South-Westward or Westward in the south of England; gale in Scotland subsiding towards evening; no important change occurring elsewhere.

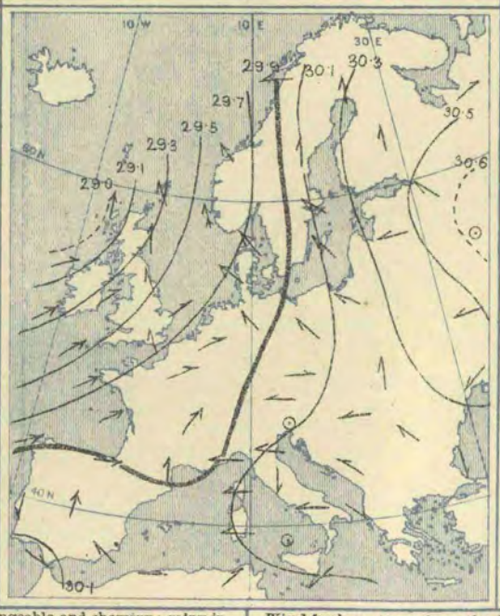
Barometer highest, 30·5 ins. to 30·6 ins. in a large anticyclone lying over northern and central Russia. Lowest, 28·9 ins. and less in a large depression of somewhat irregular form lying to the westward of the United Kingdom. Gradients steep over the whole of western Europe. Small secondary disturbance appearing later over England and France, but barometer beginning to rise again at all our more western stations.

Wednesday, 7th October.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.

Weather greatly improved over the British Islands, but still changeable and showery: rainy in Belgium, the north-east of France, and the south of Norway; dull over the Spanish Peninsula, with rain at San Fernando. Fine in most other parts of Europe, but with fog at several of the German and Austrian stations. Heavy showers, accompanied in some instances by thunder and lightning, occurring over England during day. Large quantities of rain falling in the Hebrides and south of Norway, as well as over the southern parts of France.

Temperature highest, 75° at Algiers and Malta, 74° at Barcelona, and 73° at Cagliari; above 60° on the shores of the Mediterranean and Adriatic generally, as well as on the coasts of the Iberian Peninsula; above 55° in the south-east of England, and also in the west of Norway. Lowest, 33° at Moscow, 39° at Uleaborg, 40° at Archangel, and 41° at St. Petersburg and Kharkov. Daily maxima very little above 60° in any part of the United Kingdom, but thermometer exceeding 70° at some of the French stations, and exceeding 75° in many parts of southern Europe.

Wind fresh or strong from the South-Westward in the western and southern parts of the United Kingdom, and also over the greater part of France; moderate from the Southward in the north and east of our Islands; strong to a gale from the South-Eastward on the eastern shores of the North Sea. Light from South-East over Sweden, Finland, the Baltic, eastern Germany, and Austria, and from the Eastward or North-Eastward in the south of Russia. Very variable over southern Europe and the Mediterranean. No important change occurring during day, but wind moderating somewhat on our western and southern coasts.

Barometer highest, 30·6 ins. and upwards over central Russia; 30·2 ins. and upwards in a large anticyclone covering the whole of Russia, with the Gulf of Bothnia and the northern parts of the Baltic. Lowest, 29·0 ins. and less in a depression lying to the north-westward of the United Kingdom. Rise of barometer taking place during day in most parts of western Europe, but shallow secondary depressions moving north-eastward across England.

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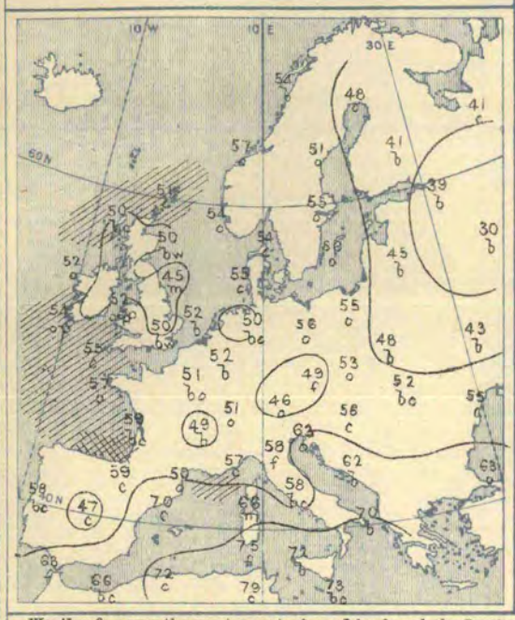
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 8th October.

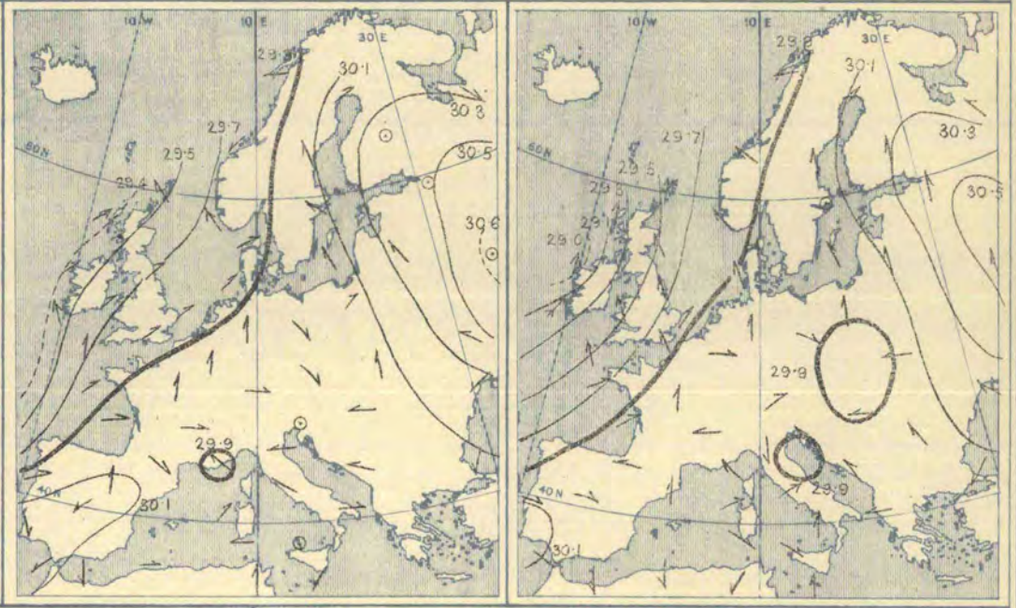
Temperature and Weather. 8 a.m.



Weather fine over the greater part of our Islands and the Continent, but dull and showery in the west of Ireland. Dull also in many parts of Scandinavia, Germany, and north Italy, with rain at Wiesbaden; foggy at Prague and Vienna. Rain falling later in nearly all parts of the United Kingdom, heavily at some of our western and northern stations. Thunderstorms and heavy rain occurring over northern Italy in evening.

Temperature highest, 79° at La Calle, 75° at Cagliari, and 73° at Tunis and Malta; above 60° at nearly all the Mediterranean and Adriatic stations, and above 55° in the extreme south-east of England. Lowest, (1) 30° at Moscow, 39° at St. Petersburg, and 40° at Kharkov; (2) 44° at York, 45° at Shields, and 47° at Donaghadee, Parsonstown, and Liverpool; (3) 47° at Madrid. Daily maxima very little above 60° in any part of the Kingdom, but thermometer reaching 70° or more over the central parts of France, and nearly the whole of southern Europe, the highest reading of all being 81° at Palermo.

Barometer and Wind. 8 a.m. 6 p.m.

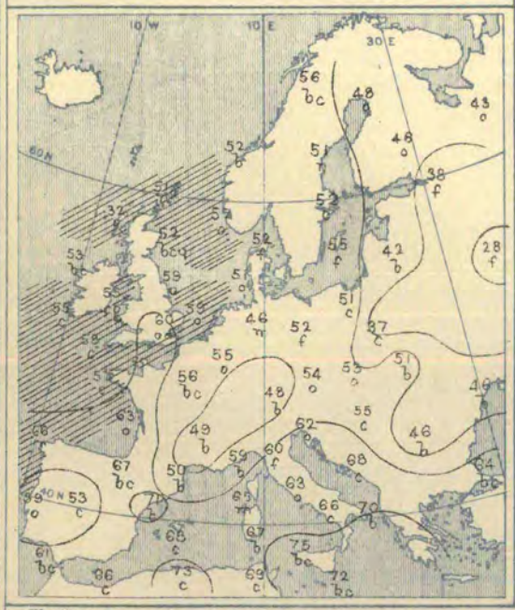


Wind Southerly (South-West to South-East) over the greater part of western and northern Europe, but Westerly in the eastern parts of the Channel; light or moderate in force generally, but fresh or strong on the west coasts of Ireland and Scotland. Light from the Eastward in the south of Russia; variable over southern Europe, Algeria, and the Mediterranean. Subsequently increasing to a gale from the Southward on nearly all parts of our western and northern coasts, and freshening somewhat over the eastern parts of the United Kingdom. Well-marked cyclonic circulation appearing over northern Italy.

Barometer highest, 30·6 ins. and upwards over central Russia; 30·1 ins. and upwards in a large anticyclone covering the whole of Russia, with the Gulf of Bothnia and the northern parts of the Baltic, as well as in another system lying over Spain. Lowest, 29·4 ins. and less in a large area lying to the westward of our Islands. Deep depression subsequently advancing to our western coasts, and barometer falling quickly over Ireland and the west of England. Shallow but well-defined depression appearing over northern Italy in evening.

Friday, 9th October.

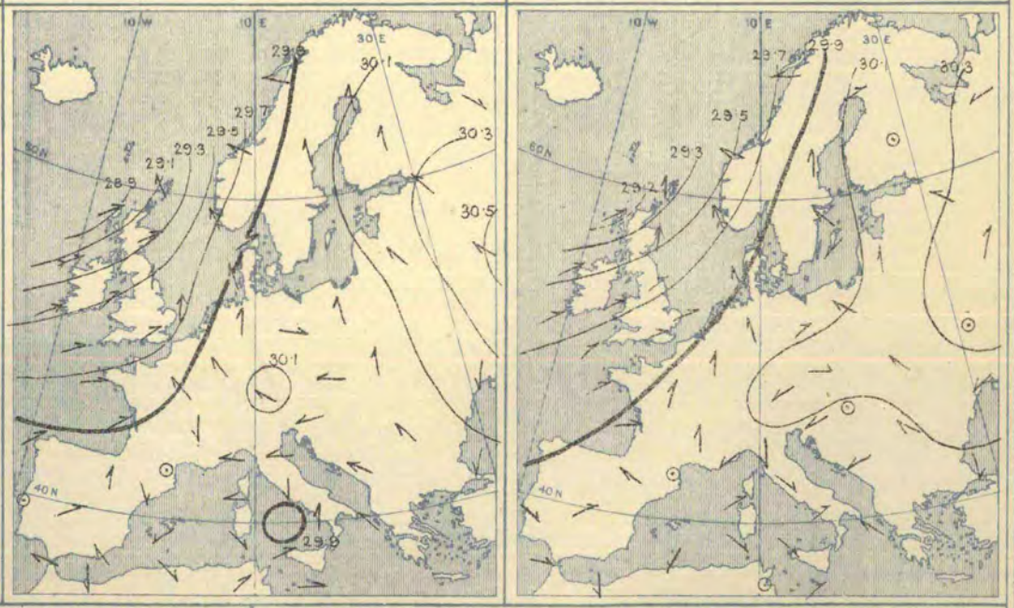
Temperature and Weather. 8 a.m.



Weather changeable and showery over the greater part of north-western Europe; fine elsewhere, but with fog at many of the Danish, German, and Russian stations, as well as in the north of Italy. Gradual improvement taking place over our Islands during day, but weather remaining cloudy and showery in some districts. Fog clearing over central Europe, but no other change occurring at Continental stations.

Temperature highest, 75° at Palermo and Tunis, 73° at Algiers, 72° at Malta, and 71° at Barcelona; above 60° over southern Europe generally, and just reaching that point at several of the English stations; above 55° even in the west of Norway. Lowest, 28° at Moscow, 37° at Warsaw, 38° at St. Petersburg, 41° at Nicolaieff, and 42° at Riga. Rising during day to 65° at Cambridge, to 66° in London, and to 67° at Jersey; exceeding 70° in the south of France, on the northern side of the Pyrenees, but not reaching that point in the Riviera. Exceeding 75° in many parts of Spain and Italy, the highest reading of all being 84° at Palermo.

Barometer and Wind. 8 a.m. 6 p.m.



Wind moderate to strong from the South-Westward over the greater part of the United Kingdom, and also in the west of France, with a gale at Belmullet and Hurst Castle. Light or moderate from the South-Eastward over Sweden, Russia, western Denmark, the Netherlands, and the north-east of France, but variable on the southern shores of the Baltic, as well as over the greater part of southern Europe and the Mediterranean. Wind moderating later in the west and south of our Islands, but remaining strong at some of our northern stations. No important change taking place on Continent.

Barometer highest, 30·50 ins. at Moscow, 30·1 ins. and upwards in an anticyclone covering the whole of Russia. Lowest, 28·9 ins. and less in a depression lying off the north-west of Scotland. Distribution of pressure somewhat irregular over central and southern Europe, with shallow local depressions in various places. Scotch disturbance subsequently travelling away to the northward, and barometer rising in all parts of the United Kingdom. Local depressions over central and southern Europe disappearing during day.

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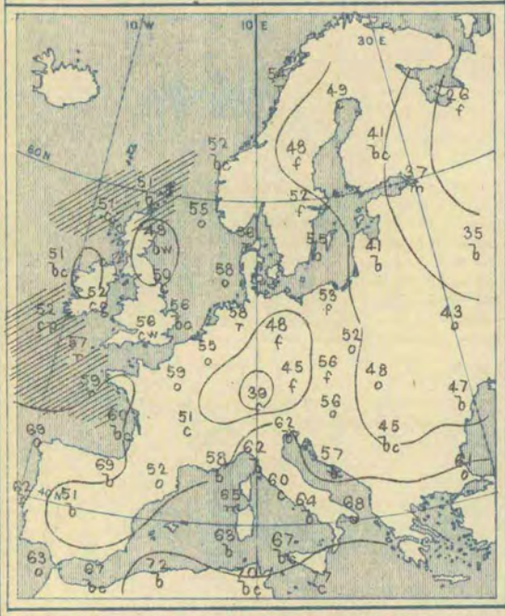
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 10th October.

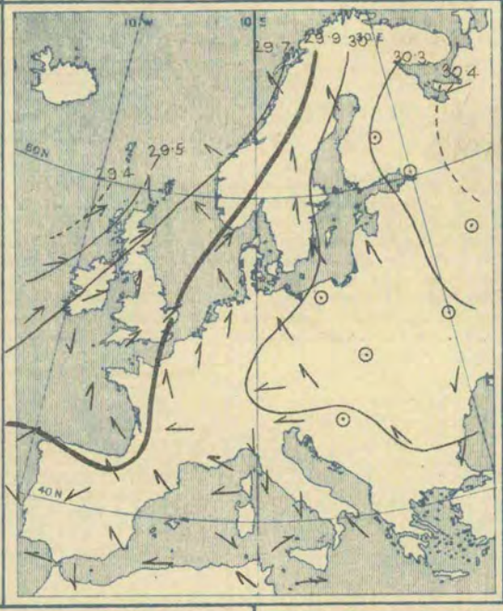
Temperature and Weather. — 8 a.m.

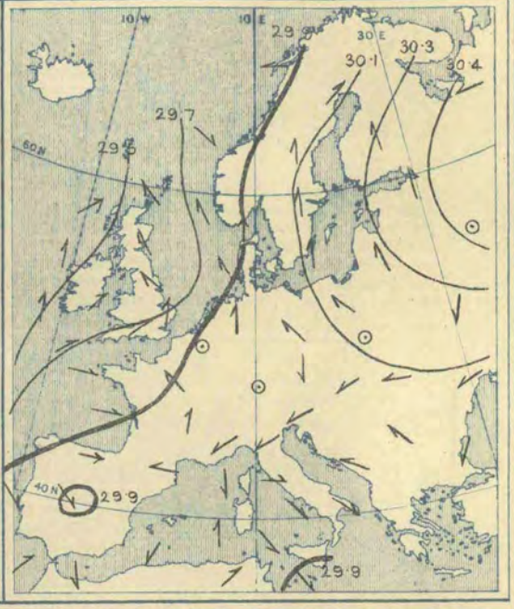


Weather dull and rainy over the greater part of England, as well as over the north of France and the eastern shores of the North Sea. Fine in most other parts of Europe, but foggy at several of the Swedish and German stations. Some improvement taking place later over England and the north of France, but rain again setting in over Ireland at night.

Temperature highest, 77° at Malta, 72° at Algiers, and 70° at Barcelona and Tunis; above 60° over southern Europe generally, and above 55° in the south and east of England, as well as on the eastern shores of the North Sea. Lowest, 26° at Archangel, 35° at Moscow, 36° at Kharkov, and 37° at St. Petersburg; below 45° in most parts of Russia, and also over south Germany. Daily maxima very little above 60° in any part of the United Kingdom, but thermometer exceeding 70° in most parts of France and southern Europe, the highest readings of all being 82° at Madrid and Palermo and 81° at Bordeaux.

Barometer and Wind.





Wind Southerly or South-Westerly in our Islands; light or moderate in force generally, but strong on our extreme north-west coasts. South-Easterly in most other parts of western Europe, as well as over the northern and central countries. Light from the North-Eastward in the south of Russia, and also over the greater part of Spain; Northerly in Italy, South-Easterly or Easterly in Algeria. No important change occurring during day.

Barometer highest, 30·4 ins. and upwards over the northern and central parts of Russia; 30·1 ins. and upwards in a large anticyclone lying over the whole of Russia and the greater part of Germany. Lowest, 29·4 ins. and less in a depression lying off the north-west of Scotland. Very small and shallow disturbance lying off the Cornish coasts in morning, and subsequently moving north-eastwards across England. Larger depression approaching the Irish coasts in evening. No important change taking place on Continent.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

In the course of this week there has been a constant succession of depressions travelling from south-west to north-east over the Atlantic, their centres passing along at some considerable distance outside our extreme west and north-west coasts. At first pressure was high all over the Continent, so that the disturbances did not spread much inland, and their rains and gales were confined mainly to the Atlantic shores of the British Islands. Gradually, however, the French and German pressures gave way, and as this took place depressions which appeared in the west "surged" eastwards, and the whole of north-western and western Europe was thus involved in the unsettled stormy weather. Temperature has changed very frequently; frost has been experienced on the ground over the inland parts even of the British Islands, but some of the daily maxima have been high, especially over south-western and southern Europe.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 236.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	23·4	?	31	?	NEWQUAY	27·1	?	35	?
OSWALDKIRK (Yorkshire)	16·7	?	22	?	TORQUAY	31·5 *	?	40 *	?
WORKSOP	13·3	− 1·9	24	− 2	ARLEY COTTAGE (County Cavan)	22·2	?	29	?
THURCASTON (Leicestershire)	27·6	+ 7·6	36	+10	GUERNSEY	31·0 *	?	40 *	?
EASTBOURNE	26·3	?	34	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 41.] *Third Series.* WEEK ENDING SATURDAY, 17TH OCTOBER, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 242.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	58	35	52·1	42·6	47·2	1 above.	36	− 2	0	− 7	1925	+222	621	+ 64
	1. SCOTLAND, EAST -	62	32	52·6	40·6	46·5	0 (average)	37	− 7	4	− 3	2147	− 25	674	+ 91
	2. ENGLAND, N.E. - -	58	35	55·3	43·0	49·0	1 above.	49	+ 1	0	− 4	2259	− 60	593	+ 86
	3. ENGLAND, EAST -	62	38	58·1	45·1	51·4	2 above.	66	+14	0	− 7	2627	− 61	689	+116
	4. MIDLAND COUNTIES	61	34	56·0	41·4	48·5	0 (average)	48	0	2	− 6	2547	− 87	670	+ 99
	5. ENGLAND, SOUTH -	62	39	59·0	47·4	53·0	3 above.	77	+18	0	− 5	2825	− 78	565	+139
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	57	33	53·4	43·7	48·7	1 above.	47	+ 2	0	− 7	2352	+123	462	+ 36
	7. ENGLAND, N.W.	59	39	54·1	43·8	48·8	0 (average)	48	− 1	0	− 5	2483	+ 64	449	+ 30
	8. ENGLAND, S.W. -	64	32	56·4	44·1	50·1	1 below.	57	0	0	− 3	2610	− 80	434	+113
	9. IRELAND, NORTH -	57	33	52·1	40·8	46·2	2 below.	34	−14	3	− 2	2445	+ 73	394	+ 28
	10. IRELAND, SOUTH -	58	32	54·1	42·1	47·9	2 below.	41	−15	0	− 4	2694	+ 21	309	+ 27
	— CHANNEL ISLANDS -	63	46	59·4	50·6	54·9	1 above.	90	+14	0	0	3029	+ 6	162	+ 40

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 242.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	6	19	7 more.	192	+ 5	41·0	+ 4·9	15	− 3	21	− 4	1040	− 12	27	− 1
	1. SCOTLAND, EAST -	5	12	5 more.	143	−11	25·5	− 1·1	24	+ 6	33	+ 6	1173	− 48	31	− 1
	2. ENGLAND, N.E. - -	5	9	3 more.	138	− 4	18·8	− 1·5	23	+ 3	30	+ 4	1110	− 13	29	− 1
	3. ENGLAND, EAST -	6	9	3 more.	145	+ 6	19·8*	− 0·3	30	+ 6	40	+ 7	1282	− 78	34	− 2
	4. MIDLAND COUNTIES-	7	16	9 more.	145	+ 9	22·7	+ 0·2	24	+ 3	32	+ 4	1208	− 9	32	− 1
	5. ENGLAND, SOUTH -	7	20	13 more.	141	+ 8	23·9	+ 2·7	27	+ 5	36	+ 5	1386	+ 61	37	+ 1
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	6	22	11 more.	157	− 5	33·9	− 3·4	22	+ 3	29	+ 3	1242	+ 32	33	+ 1
	7. ENGLAND, N.W. - -	7	19	10 more.	141	− 7	27·0	+ 0·5	20	+ 2	27	+ 2	1129	− 71	30	− 2
	8. ENGLAND, S.W. - -	7	27	17 more.	149	− 3	32·1	+ 1·7	25	0	33	0	1435	+ 1	38	− 1
	9. IRELAND, NORTH -	7	21	12 more.	174	− 1	26·9	− 1·1	22	+ 3	30	+ 5	1174	+ 75	31	+ 2
	10. IRELAND, SOUTH -	7	23	14 more.	156	− 3	29·3	− 0·6	26	+ 4	35	+ 5	1293	+ 9	34	0
	— CHANNEL ISLANDS -	7	18	9 more.	148	−13	26·0	+ 1·6	36	+ 7	49	+10	1763	+ 83	48	+ 3

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been extremely stormy and unsettled in all parts of the Kingdom, with heavy falls of rain in nearly all districts, and occasional thunder and lightning. Towards the end of the week the conditions improved somewhat, and some fine, clear intervals were experienced.

Temperature has been a little below the mean over Ireland and the south-west of England, but about equal to the normal, or rather above it, elsewhere; in "England S." there has been an excess of 3°. The highest of the maxima, which were registered on irregular dates, ranged from 64° in "England S.W." to 57° in "Ireland N." The lowest of the minima were generally recorded either on the 13th or 17th, and ranged from 32° in "Scotland E.," "England S.W.," and "Ireland N.," to 39° in "England S." and "N.W." and to 46° in the "Channel Islands."

Rainfall has been more than the mean in all districts. In most instances the fall has been about twice as much as the normal, while in "England S." it has amounted to nearly three times as much.

Bright Sunshine has been rather more than the mean in most districts. The percentage of the possible amount of duration varied from 49 in the "Channel Islands" and 40 in "England E.," to between 27 and 30 in most of the northern and north-western districts and to 21 in "Scotland N."

Barometer and Wind.—During this period the centres of some deep depressions have travelled north-north-eastwards outside, or over, our western and north-western coasts, and the systems have at the same time spread a good deal over our Islands. Strong and frequent gales from the Southward and South-Westward have consequently been very general over the United Kingdom. That which accompanied the exceptionally deep disturbance of the 13th was very severe, especially on our western, south western, and southern coasts. Over the eastern part of the English Channel a fresh to strong gale from between South and West prevailed almost throughout the entire period.

* This value has been altered slightly owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 241 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	54	43	51·6	46·1	48·8	+ 2·9	48	0	6	0·89	−0·08	*	*	*	*
	Stornoway ⚓	55	35	50·6	42·7	46·5	+ 0·5	32	0	7	1·87	+0·84	17·3	− 2·7	24	− 4
	Wick ⚓	57	40	54·0	44·4	49·1	+ 2·7	50	0	4	0·77	+0·09	*	*	*	*
	Lairg ⚓	58	35	52·0	39·3	45·5	− 0·3	36	8	6	1·36	+0·45	*	*	*	*
	Glencarron ⚓	56	35	51·0	39·8	45·2	− 0·1	32	6	7	3·07	+1·09	*	*	*	*
	Fort Augustus ⚓	56	37	53·3	42·6	47·8	+ 1·2	41	0	5	1·89	+0·97	15·1	?	21	?
	Fort William ⚓	56	40	52·3	43·2	47·6	0·0	39	0	7	3·41	+1·63	12·5	?	17	?
1. SCOTLAND, E.	Nairn ⚓	62	36	53·9	41·1	47·3	+ 0·6	41	3	4	0·42	−0·12	*	*	*	*
	Aberdeen ⚓	54	35	52·7	42·0	47·2	− 0·1	36	0	4	1·02	+0·38	25·0	+ 4·1	35	+ 6
	Braemar ⚓	51	33	48·0	40·2	44·0	+ 0·4	22	5	6	2·02	+1·12	12·8†	? †	18†	?†
	Ochtertyre ⚓	59	32	53·4	38·6	45·8	− 0·5	41	10	6	2·14	+1·21	*	*	*	*
	Leith ⚓	57	39	55·0	43·1	48·9	+ 0·3	48	0	6	0·79	+0·37	*	*	*	*
	Marchmont ⚓	55	35	52·7	38·7	45·5	− 0·3	38	9	5	0·87	+0·13	26·0	?	36	?
2. ENGLAND, N.E.	Alnwick Castle	57	35	54·4	41·3	47·7	+ 0·1	43	2	5	1·16	+0·52	*	*	*	*
	Durham	57	38	54·8	42·1	48·3	+ 0·7	44	0	5	0·62	−0·04	22·9	+ 4·1	31	+ 5
	Shields	57	39	55·3	43·0	49·0	+ 0·9	49	0	5	0·57	+0·01	*	*	*	*
	Scarborough ⚓	57	40	54·7	43·4	48·9	− 0·1	48	0	6	1·08	+0·38	*	*	*	*
	York	57	38	56·0	41·4	48·5	+ 0·2	48	2	5	1·14	+0·54	21·0	+ 2·9	28	+ 3
	Spurn Head	58	44	56·7	46·7	51·6	+ 1·6	67	0	5	0·73	+0·23	*	*	*	*
3. ENGLAND, E.	Hillington ⚓	61	40	57·7	43·8	50·5	+ 1·7	60	0	5	0·71‡	+0·12‡	27·3	+ 6·2	37	+ 8
	Yarmouth ⚓	60	44	57·1	48·3	52·6	+ 2·9	74	0	6	0·59	−0·07	*	*	*	*
	Geldeston ⚓	62	41	59·1	45·6	52·2	+ 2·4	71	0	6	0·90	+0·30	31·3	+ 6·3	42	+ 8
	Cambridge ⚓	61	40	59·3	44·1	51·5	+ 2·4	67	0	5	0·88	+0·37	28·8	+ 5·0	39	+ 6
	Rothamsted ⚓	59	38	57·4	43·5	50·2	+ 2·1	57	0	7	1·63	+0·97	31·9	?	43	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	57	35	55·7	38·9	47·1	− 1·0	49	9	5	0·79	+0·17	*	*	*	*
	Loughborough	61	40	57·7	43·7	50·5	+ 1·7	60	0	6	1·44	+0·81	*	*	*	*
	Stamford (Ketton Hall)	60	37	58·1	41·4	49·5	+ 0·9	55	2	6	0·80	?	*	*	*	*
	Cheadle ⚓	56	34	53·9	40·1	46·8	− 0·1	42	5	7	1·45	+0·65	*	*	*	*
	Churchstoke ⚓	57	39	54·0	41·0	47·3	− 0·3	41	3	7	2·68	+1·98	22·5	+ 1·9	30	+ 2
	Hereford ⚓	58	39	55·6	42·3	48·8	+ 0·2	48	0	7	2·23	+1·61	*	*	*	*
	Cirencester	59	36	56·3	39·1	47·5	− 0·3	51	8	7	1·59	+0·91	21·2	+ 0·1	29	0
	Oxford	60	42	56·7	44·9	50·6	+ 1·4	60	0	7	1·41	+0·83	26·6	+ 3·6	36	+ 5
5. ENGLAND, S.	London	62	41	59·9	45·7	52·6	+ 2·7	74	0	6	1·34	+0·75	29·3†	+11·5†	39†	+15†
	Strathfield Turgiss ⚓	60	39	58·5	43·8	50·9	+ 1·9	62	0	7	1·67	+1·07	*	*	*	*
	Dungeness	62	46	60·4	52·4	56·3	+ 4·6	100	0	7	1·97	+1·25	*	*	*	*
	Hastings (St. Leonards)	61	44	59·5	50·1	54·7	+ 3·0	89	0	7	1·68	+0·80	24·6	− 3·4	33	− 5
	Southampton	61	40	58·7	46·5	52·4	+ 1·6	73	0	6	2·51	+1·79	29·4	+ 3·4	39	+ 5
	Hurst Castle	62	46	59·7	50·1	54·8	+ 3·1	90	0	7	2·29	+1·55	*	*	*	*
	Stowell ⚓	59	39	56·0	43·0	49·3	+ 0·6	51	0	6	2·46	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	?	39	?	42·2	?	?	?	?	7	3·61	+1·85	*	*	*	*
	Glasgow	55	41	51·7	44·0	47·7	+ 0·7	40	0	6	1·39	+0·55	16·4	+ 0·4	22	+ 1
	Ardrossan	57	41	55·6	46·6	51·0	+ 2·1	63	0	5	0·80	−0·07	*	*	*	*
	Glenlee ⚓	55	33	53·0	40·1	46·4	− 0·1	39	5	7	3·12	+1·87	*	*	*	*
	Douglas (Isle of Man)	55	42	53·4	45·8	49·5	+ 0·7	53	0	6	2·14	+1·22	26·8	+ 3·6	36	+ 5
7. ENGLAND, N.W.	Newton Reigny	55	39	52·5	41·7	46·9	+ 0·1	36	1	7	2·99	+2·19	22·9	+ 4·1	31	+ 5
	Stonyhurst	57	41	53·7	43·2	48·3	+ 0·2	44	0	7	1·77	+0·62	16·5	− 2·3	22	− 4
	Blackpool ⚓															
	Manchester	59	40	54·7	42·7	48·5	+ 0·4	46	0	7	1·85	+0·94	*	*	*	*
	Liverpool Obsy. (Bidston)	59	42	54·9	44·3	49·4	− 0·2	52	0	7	1·12	+0·32	*	*	*	*
	Llandudno ⚓															
	Holyhead	57	45	54·7	47·3	50·9	− 0·4	62	0	7	1·82	+0·85	*	*	*	*
8. ENGLAND, S.W.	Llandovery	60	32	55·0	38·3	46·4	− 2·8	46	10	7	4·97	+3·77	*	*	*	*
	Pembroke	59	37	55·6	46·4	50·9	− 0·8	62	0	7	3·56	+2·66	21·3	− 1·5	29	− 2
	Arlington (N. Devon)	60	38	54·9	42·3	48·4	− 1·2	45	0	7	2·43	+1·14	*	*	*	*
	Cullompton ⚓	61	34	57·3	41·6	49·3	− 0·3	53	1	7	2·20	+1·30	18·3	− 2·9	24	− 4
	Falmouth	61	42	57·0	45·6	51·1	− 0·9	64	0	7	2·39	+1·18	31·4	+ 5·3	42	+ 7
	Plymouth	64	? 42	58·9	? 46·5	? 52·5	?+ 1·1	?74	0	7	2·44	+1·61	25·1	+ 1·1	34	+ 1
	Prawle Point	59	42	56·1	47·9	51·9	− 0·5	69	0	7	0·92	+0·12	*	*	*	*
9. IRELAND, N.	Malin Head	55	39	50·7	42·4	46·4	− 1·5	31	0	6	1·46	?	*	*	*	*
	Londonderry	57	37	51·8	40·9	46·2	− 2·0	34	3	7	1·80	+0·85	*	*	*	*
	Mullaghmore	57	41	51·7	43·4	47·4	− 2·8	38	0	6	2·18	+1·08	*	*	*	*
	Belmullet	54	41	51·6	44·3	47·8	− 3·4	41	0	7	3·00	?	*	*	*	*
	Markree Castle	56	34	51·1	38·5	44·6	− 3·2	33	10	7	2·32	+1·44	18·9	− 0·4	26	0
	Brookeborough	55	33	51·5	38·5	44·8	− 1·8	34	10	6	2·01	+1·09	*	*	*	*
	Armagh	57	36	53·0	40·4	46·5	− 1·1	38	4	7	1·80	+1·11	25·0	+ 7·0	34	+10
	Donaghadee	55	37	54·4	41·0	47·5	− 1·4	43	3	7	2·35	+1·65	*	*	*	*
	Edgeworthstown	57	33	52·9	37·6	45·0	− 1·8	39	12	7	1·79	+1·10	*	*	*	*
10. IRELAND, S.	Dublin	58	39	54·3	43·3	48·6	− 1·2	46	0	7	2·44	+1·75	28·3	+ 5·8	39	+ 8
	Parsonstown	58	36	54·3	39·7	46·8	− 1·3	43	6	6	1·41	+0·71	21·8	+ 0·8	29	+ 1
	Kilkenny	58	32	53·9	39·7	46·6	− 2·4	42	6	7	1·64	+0·95	*	*	*	*
	Waterford												*	*	*	*
	Roche's Point	57	40	54·1	45·4	49·6	− 1·6	53	0	6	2·50	+1·59	*	*	*	*
	Valencia	56	41	54·4	44·0	49·1	− 2·8	50	0	7	2·84	+1·54	28·1	+ 5·8	38	+ 8
	Killarney	58	37	54·3	41·4	47·7	− 2·4	42	2	7	2·77	?	*	*	*	*
	Foynes	57	39	53·3	41·5	47·2	− 1·6	39	1	7	2·29	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	61	46	57·7	48·3	52·9	− 0·8	76	0	7	2·18	+1·36	*	*	*	*
	Jersey	63	50	61·1	52·9	56·9	+ 3·0	104	0	7	1·46	+0·47	36·4	+ 7·7	49	+ 10

Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

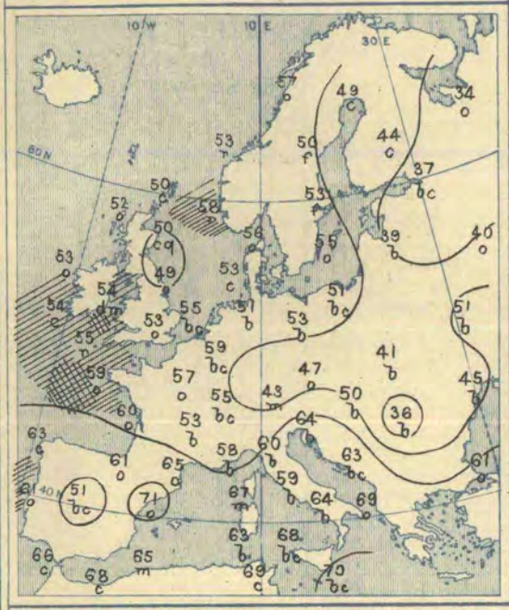
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

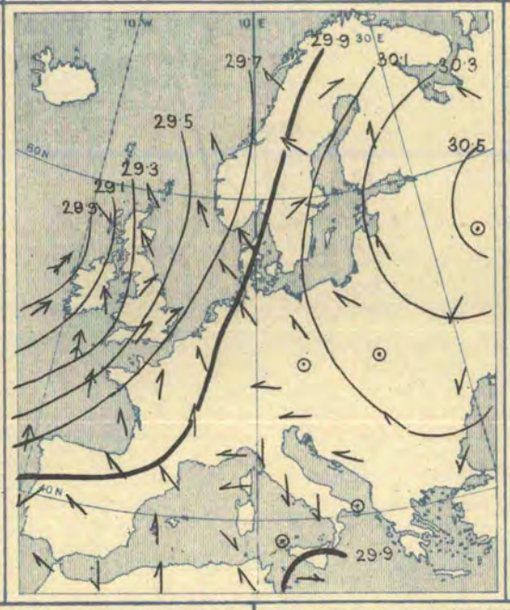
‡ The corresponding figures in last week's Report should read "0·88" and "+0·29."

Sunday, 11th October.

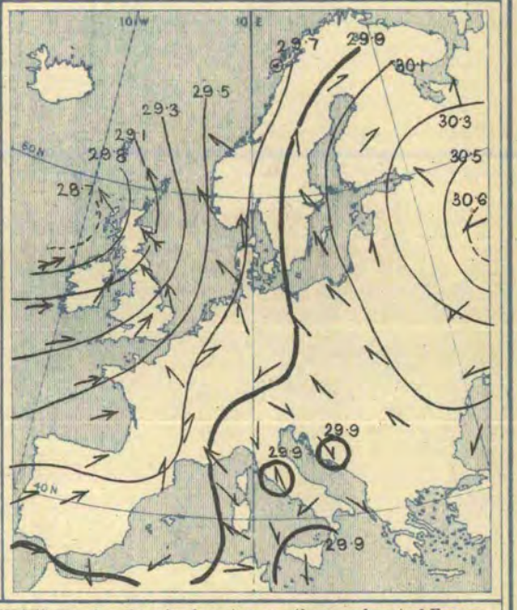
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fair at some of our eastern and south-eastern stations, but dull over the greater part of the United Kingdom, with rain in the west. Rainy also in the west of Norway, and dull at many of the French stations, but fine in most other parts of the Continent. Fog still reported over the central parts of the Swedish coast and mist in some parts of Germany. Considerable falls of rain taking place later over the greater part of western Europe, but weather improving somewhat in the west and south-west of our Islands. Heavy local fall (1·1 ins.) at Brindisi.

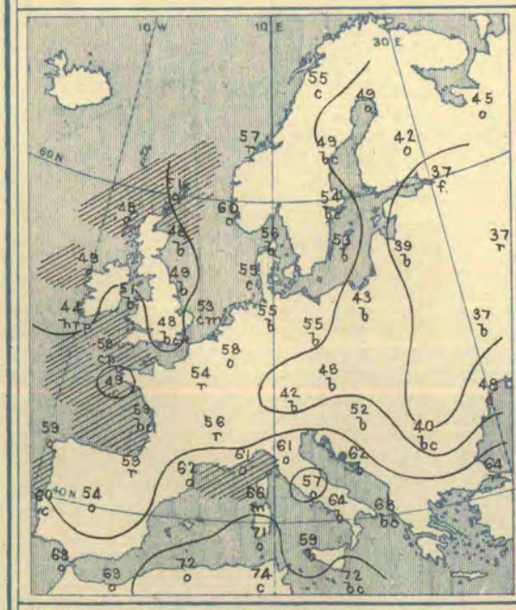
Temperature highest, 72° at Palma, 71° at Barcelona, and 70° at Malta and Aumale; above 60° over southern Europe generally, and above 55° over the extreme south of England, and also on the eastern shores of the North Sea. Lowest, (1) 34° at Archangel, 37° at St. Petersburg, 39° at Riga, and 40° at Moscow; (2) 36° at Hermanstadt, 40° at Kharkov, 42° at Nicolaieff, 43° at Munich; below 45° at most of the Russian stations, and also in some parts of Germany and Austria. Daily maxima in our Islands below 60° in all but the extreme southern parts, but thermometer rising to 70° at many of the French, the Spanish, and the Italian stations, and reaching 81° at Biarritz.

Wind Southerly or South-Easterly in nearly all parts of western, northern, and central Europe. Strong to a gale in force over the west of our Islands, and also in the south of Norway. Somewhat variable over the southern and eastern parts of the Continent, but chiefly Easterly or North-Easterly; very variable at the Mediterranean stations. Moderate to fresh Southerly gales spreading later to nearly all parts of the United Kingdom, but wind veering to the South-Westward on our western coasts and moderating in strength.

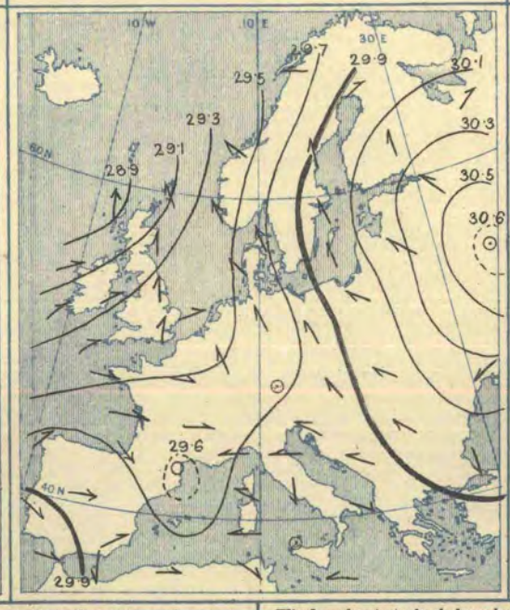
Barometer highest, 30·5 ins. and upwards to 30·1 ins. in a large anticyclone covering the whole of Russia and the eastern parts of the Baltic. Lowest, 28·8 ins. and less in a deep depression lying off the west of Ireland. Gradients steep over all the more western parts of our Islands. Depression subsequently moving northwards and barometer rising again on our south-west coasts.

Monday, 12th October.

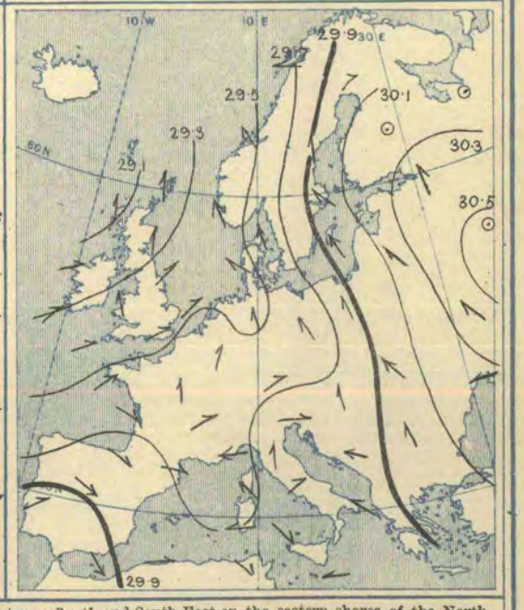
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning clear, bright, and quiet over the greater part of south-eastern and central Europe, temporarily clear at most of the British and Irish stations; cloudy or overcast elsewhere, with showers in the extreme south-west of the British Islands (hail at Valencia Island) and rain at Christiansund. Rain falling later, but not in large quantity, over Ireland, England, and France. Very heavy rains and thunderstorms in the south and south-east of France, and heavy rain at Skudesnaes and the Scaw.

Temperature falling decidedly over the British Islands, especially in the west. Morning readings highest (70° and more) at Malta and on the Algerian coast, but below 60° over nearly the whole of Europe; locally high in the west of Norway. Below 50° at many inland stations, and as low as (1) 29° at Kharkov, 37° at Kiev, Moscow, and St. Petersburg, 39° at Riga; (2) 41° at Parsonstown, 45° at Malin Head and York, 47° at Oxford, 48° in London. Rising later to a little above 60° in south-eastern and central England, as well as over many parts of the Continent, to 70° at Perpignan, to still higher values over Italy, and to 80° to 86° over Algeria. Unsteady and low over England at night.

Wind moderate to fresh from between South and South-East on the eastern shores of the North Sea and from between South and South-West over the greater part of the British Islands, but strong on our north-west coasts. Moderate to light from West and North-West over France, light South-Easterly over central, and Easterly over south-eastern Europe. Local cyclonic circulation over the extreme south-west of France. Latter system moving Eastwards later to Gulf of Genoa and increasing in intensity.

Barometer highest, 30·6 ins. and more to 30·0 ins. in a large anticyclone covering Russia; 29·9 ins. to 29·7 ins. over the south-western half of the Spanish Peninsula. Lowest, 28·9 ins. and less in a depression off our extreme north-west coasts; shallow secondary disturbances over England and the North Sea, and below 29·6 ins. in a shallow depression near Perpignan. Rising over our Islands till evening, when a very slight fall was observed at Scilly. The depression near Perpignan travelling eastwards.

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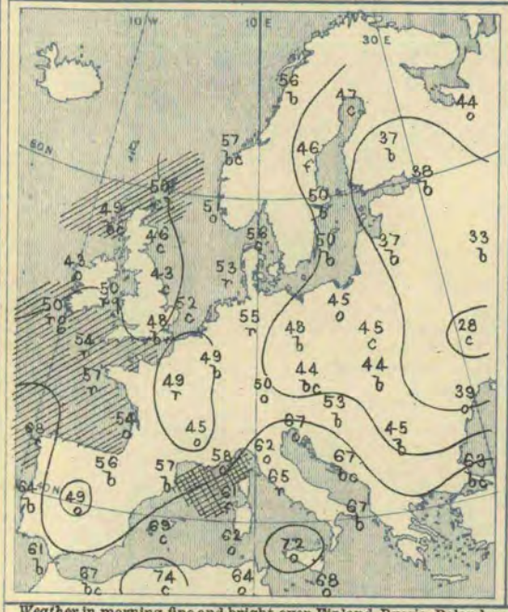
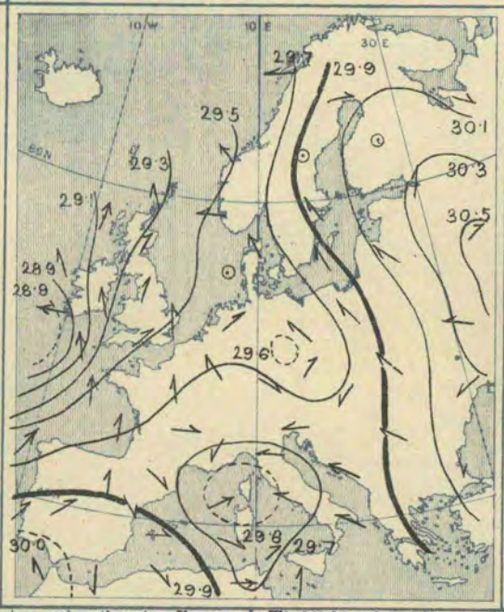
Tuesday, 13th October.

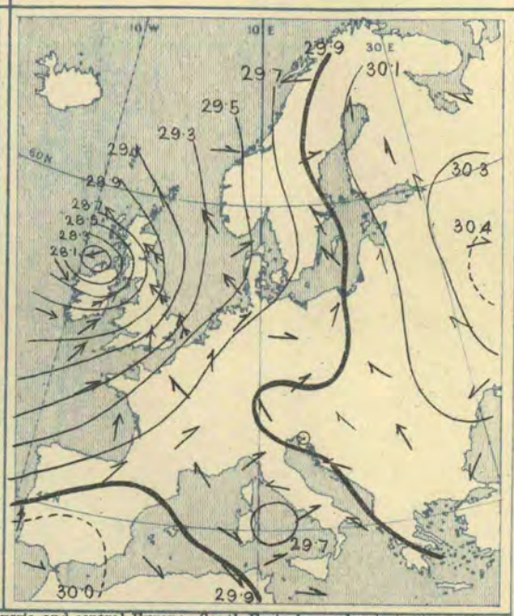
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over Finland, Russia, Poland, eastern and south-eastern Europe generally; cloudy, more or less, and unsettled, over the western countries, though temporarily clear over the home counties of England; especially rough and unsettled in the south-west of Ireland, where strong squalls and heavy rain were setting in. Exceedingly rough and unsettled later over north-western Europe generally—rainfall at our western stations ranging from 0·5 in. to 1·1 ins., and equally large quantities in the west and north of France. Very heavy rain at Rome also; thunderstorm at Tunis.

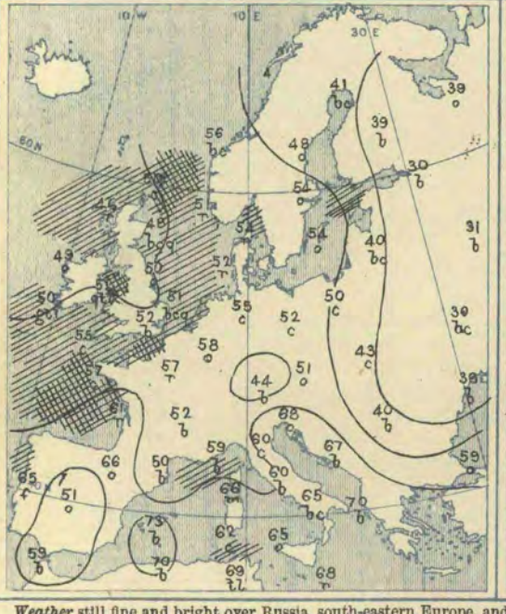
Temperature changing fitfully. Morning readings exceeding 70° at Palermo, Malta, and Algiers only, exceeding 60° over most parts of the Adriatic, Mediterranean, and Spanish Peninsula; much lower elsewhere. Lowest of all, (1) 26° at Kharkov, 28° at Kiev, 33° at Moscow, 37° at Kuopio and Riga, 38° at St. Petersburg, 39° at Odessa; (2) 43° at Shields and Belmullet, 44° at Oxford, 46° at Parsonstown, 48° in London. Rising to 60° and more in the south of England and over France later, to 70° and more over Spain, the south of France, Italy, and the Adriatic, to 80° at La Calle, and to 104° at Biskra.

Wind light and variable over Russia and central Europe; South-Easterly, moderate to strong, in Norway; South-Easterly, light, over Germany; Southerly over the British Islands and west and north of France—moderate in most places, but beginning to blow hard on our south-western coasts and at Corunna, and increasing over Brittany and the Channel. Separate cyclonic circulation of moderate winds over the northern parts of the Mediterranean. Very severe gale all over the United Kingdom and North Sea later—from between South-East, South, and West at the more southern stations, and from between East and South-East in the north-west and north.

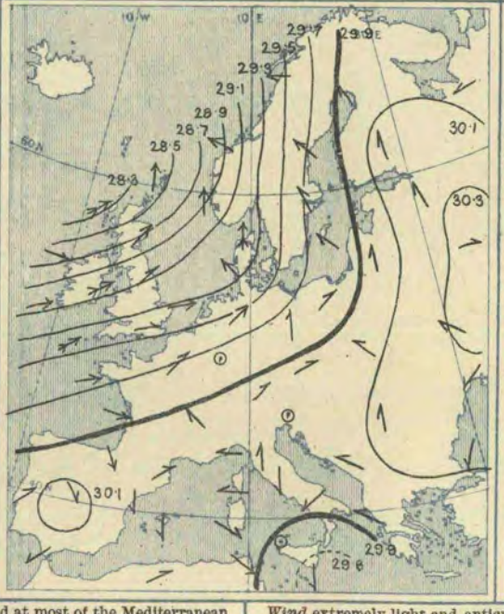
Barometer highest, (1) 30·5 ins. and more to 30·0 ins. in a large anticyclone covering Russia, Finland, and south-eastern Europe; (2) 30·0 ins. and more to 29·9 ins. over the southern half of the Spanish Peninsula, and exceeding 29·8 ins. over the southern half of central France. Lowest, (1) 28·8 ins. and less in a deep depression approaching our south-west coasts rapidly from the south-westward; (2) about 29·5 ins. in a smaller and shallow system over the north-eastern part of the Mediterranean; (3) 29·6 ins. and less in a small shallow system near Berlin. The depression off our south-west coasts moving north-eastwards and northwards later, and growing much deeper; centre at 6 p.m. over the north of Ireland, where barometer fell to about 28·0 ins.

Wednesday, 14th October.

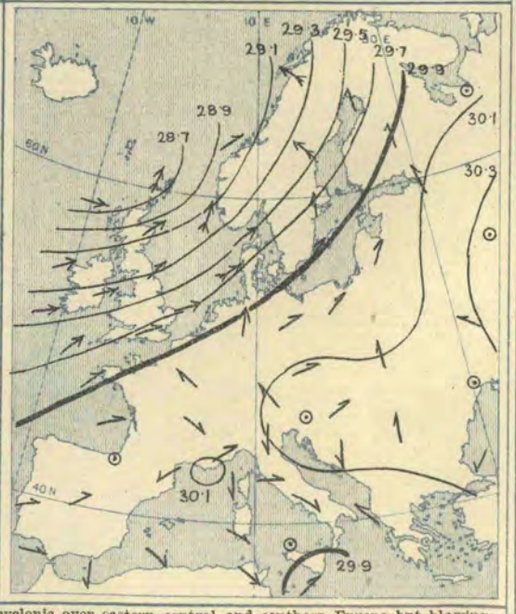
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather still fine and bright over Russia, south-eastern Europe, and at most of the Mediterranean stations; exceedingly changeable, squally, rainy, and unsettled over the whole of north-western Europe, though very temporarily clear at many of the English stations. Rain later throughout the British Isles (especially in the west), the north of France, and on the eastern shores of the North Sea; hail, thunder, and lightning at times in several places. No rain over Germany and the south of France, but slight falls occurring in some parts of northern Russia.

Temperature in morning higher over England and France than on Tuesday, but changing very fitfully; still as high as 70° at Brindisi and Algiers, and exceeding 60° at several of the Mediterranean and Adriatic stations and on the Portuguese coast; above 50° over England, France, and on the eastern shores of the North Sea; lower elsewhere. Lowest, (1) 30° at St. Petersburg and Kiev, 31° at Moscow, 34° at Ulcaborg and Nicolaieff, 39° at Odessa, Kuopio, and Archangel; (2) 45° to 48° over Scotland and the north of Ireland. Rising later to a little above 60° over the south of England and still higher over France and Germany; exceeding 70° in all parts of southern Europe, the highest reading of all being 79° at Palermo and San Fernando.

Wind extremely light and anticyclonic over eastern, central, and southern Europe, but blowing very hard in the north-west—West-South-Westerly over the southern parts of the British Islands, South-Westerly in the north, Southerly and South-Easterly on the eastern shores of the North Sea, South-Easterly to Easterly over the northern half of Scandinavia. Moderating later, except in the English Channel, where a very strong gale continued all day. Backing somewhat at Scilly in evening and lulling to a strong breeze. No important change occurring at Continental stations.

Barometer highest, 30·4 ins. and more to 30·0 ins. in the anticyclone over Russia, 30·1 ins. and more in another over Spain; former decreasing, latter increasing in intensity. Lowest, 28·3 ins. and less in a depression passing quickly away to the northward of the Hebrides. Rising over our Islands all day, but some indications of advance of a secondary towards the south-west of England shown by barometer at Scilly in evening.

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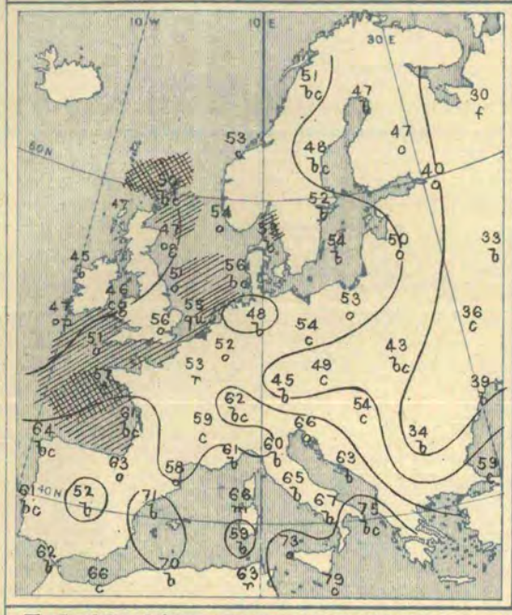
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 15th October.

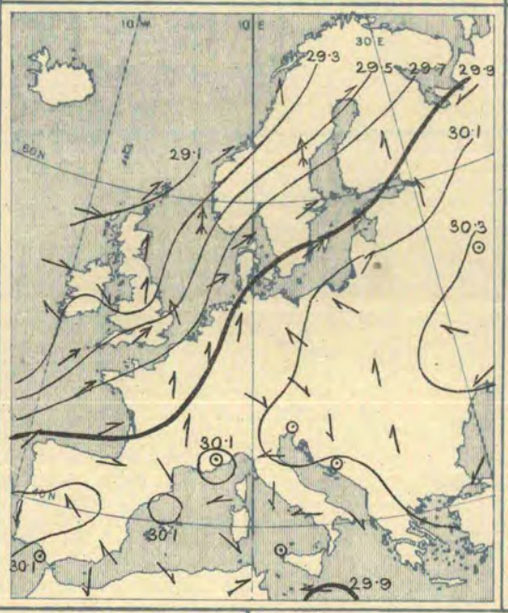
Temperature and Weather. 8 a.m.



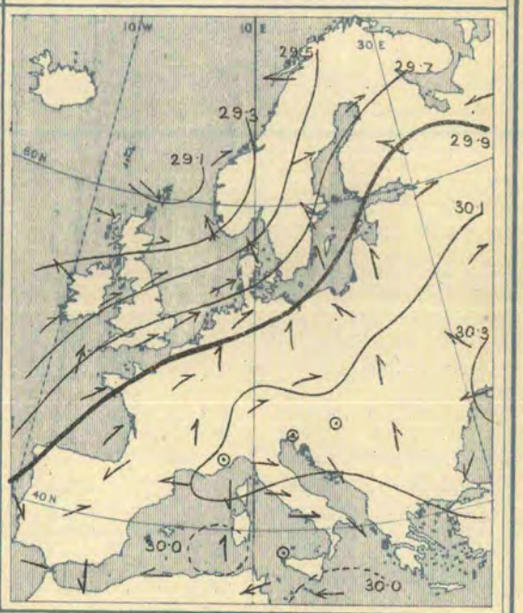
Weather dull and showery at many of the English stations, as well as at Valencia Island and in the north of France. Fair or fine in most other parts of Europe, but dull and foggy over eastern Germany and the north of Russia. Thunderstorms with heavy showers occurring later in many parts of England, as well as in Holland and Denmark. Heavy rain setting in over Ireland at night. Lunar halos seen at some of our northern stations.

Temperature highest, 79° at Malta, 75° at Brindisi, 73° at Palermo, and 70° at Algiers; above 60° in most parts of southern Europe, above 55° in the south-east of England. Lowest, 25° at Kharkov, 30° at Archangel, 32° at Nicolaieff, 33° at Moscow, and 34° at Hermanstadt. Daily maxima below 55° at most of our western and northern stations, and scarcely touching 60° even in the extreme south. Rising to 70° or more over the whole of southern Europe, the highest readings of all being 82° at San Fernando and 77° at Sanguinaire, Cagliari, and Rome.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Wind Southerly or South-Westerly over the greater part of western and northern Europe, and strong to a gale in force in the east and south of England, as well as on the eastern shores of the North Sea; light from the South-Eastward at Valencia Island. Variable over central and southern Europe; light from the Eastward in the south of Russia. No important change occurring during day; gale beginning to abate in Channel at night, wind rising in Holland and Denmark.

Barometer highest, 30·4 ins. and upwards over the southern parts of central Russia; 30·0 ins. and upwards in a large anticyclone covering the whole of central, southern, and eastern Europe. Lowest, 29·1 ins. and less in a depression lying to the northward of Scotland, 29·3 ins. and less in a secondary disturbance approaching the south of Ireland. Latter system subsequently moving north-eastwards across England, but barometer remaining very unsteady in south-west.

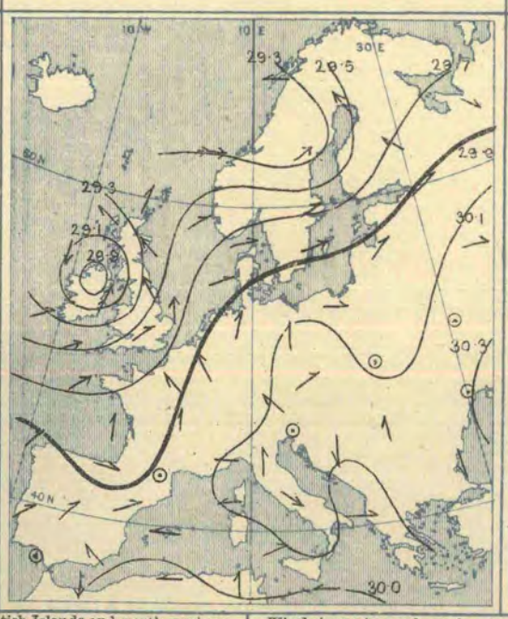
Friday, 16th October.

Temperature and Weather. 8 a.m.

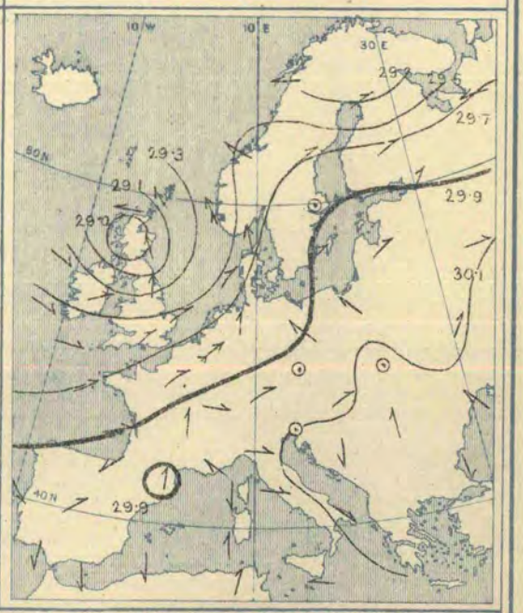
Weather in morning very changeable and unsettled over the British Islands and north-western Europe, with rain in many places (especially in the west and north), and unsettled-looking skies at most stations. Squalls and showers later in almost all parts both of our Islands, western and northern Europe, but amounts of rainfall reported not very large, except at Florence (2·0 ins.), Nice (0·79 in.), Skudesnaes (1·0 in.), and Helsingfors (3·1 ins.). Showers, however, very sharp while they lasted.

Temperature in morning still above 70° at a few of the stations on the southern side of the Mediterranean and above 60° in several parts of southern Europe, lower elsewhere; below 50° over the western and northern parts of the British Islands, and in northern Europe. Lowest of all, 26° at Kharkov, 32° at Nicolaieff and Hermanstadt, 38° at Kieff, 39° at Odessa. Not touching 60° over by far the greater part of our Islands during day, but rising to 61° at Hurst Point and Jersey, 61° to 68° over Germany, 70° and more in the south-west of France, at Lisbon, and in Italy, and 80° at Perpignan.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Wind strong to a gale, and cyclonic, all over the United Kingdom, Scandinavia, and the Gulf of Bothnia—blowing very hard indeed from South-South-West at Holyhead, and a moderate to fresh gale from between South-West and South-East in several other places, but a moderate gale from North at Belmullet. Light, variable, and anticyclonic over south-eastern and southern Europe, and the Mediterranean. Subsiding considerably, and veering over the United Kingdom and neighbourhood later, but still blowing a moderate gale (from West) over the eastern half of the English Channel.

Barometer highest, (1) 30·4 ins. and more to 30·1 ins. in a large anticyclone over southern and central Russia, and in a ridge extending thence over central and south-eastern Europe; (2) 30·1 ins. and more to 29·9 ins. in another anticyclonic system over the south-western half of Spain and neighbouring parts of the Atlantic. Lowest, (1) 28·9 ins. and less in a new depression lying over the northern half of Ireland; (2) 29·3 ins. and less in a "V"-shaped system over the northern parts of Sweden and Norway. Irish depression moving north-eastwards to Scotland later, and Russian anticyclone giving way steadily.

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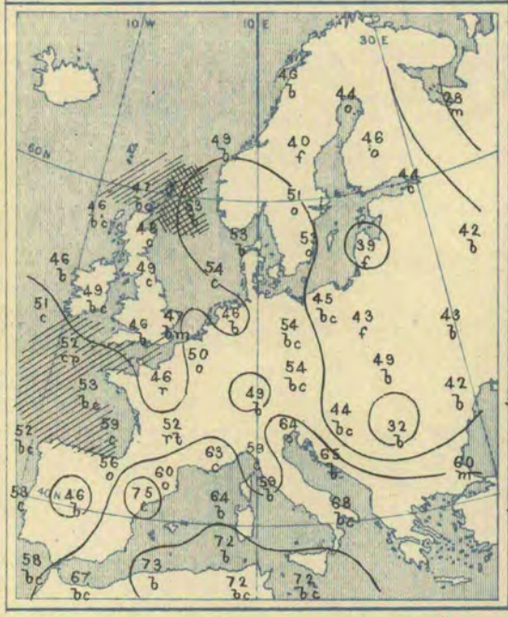
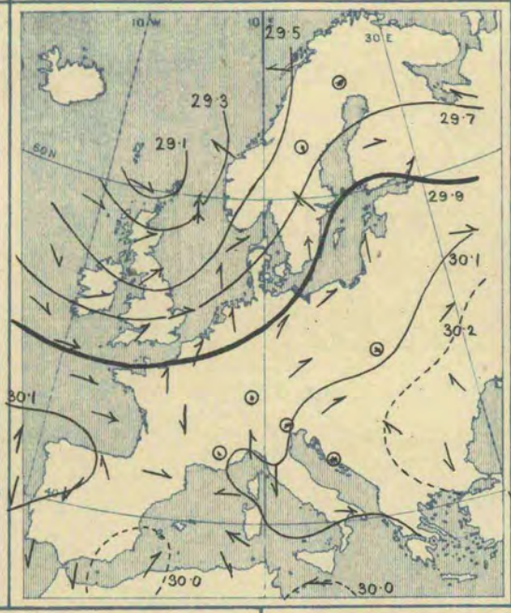
Saturday, 17th October.

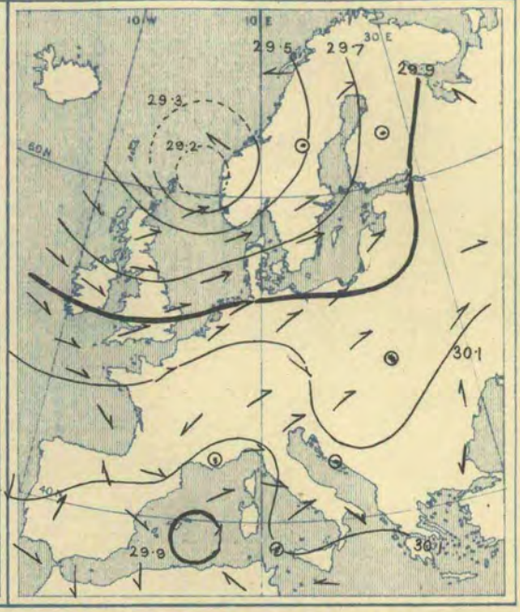
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning still very unsettled in the north of our Islands, but inclined to improve a little over Ireland and England, though still in a very changeable, unstable condition generally; rain in several parts of France also, and thunder in some places. Fine and bright over eastern and south-eastern Europe, and at most of the Mediterranean and Iberian stations. Showers later over the British Islands and northern Europe, and heavy rains in the extreme south of France.

Temperature falling over the British Islands and their neighbourhood. Morning readings exceeding 70° at many of the Mediterranean stations, and exceeding 60° at the others, as well as over the Adriatic. Below 50° over the greater part of the British Islands, northern and eastern Europe, and as low as (1) 28° at Archangel, and (2) 32° at Kharkov and Hermanstadt, and 33° at Nicolaieff. Rising later to 60° and more over the greater part of France and some parts of Germany, to 70° and more at Marseilles and the Spanish and Italian stations, and to 80° and more at some of the Algerian stations.

Wind North-Westerly to South-Westerly over the United Kingdom, South-Westerly to Southerly over the North Sea, Southerly to South-Easterly in Norway and over the Baltic; moderate in most places, but a gale at Skudesnaes. Very light and variable over eastern, southern, and south-western Europe. Blowing strongly in the English Channel later, but gale at Skudesnaes dying down and wind veering Westwards.

Barometer highest, 30·3 ins. and more to 30·1 ins. in an anticyclone over southern Russia and south-eastern Europe generally; 30·1 ins. and more to 30·0 ins. in another over the Iberian Peninsula. Lowest, 29·1 ins. and less in a depression over the Shetlands; 30·0 ins. and less in another, shallow one, over Algeria. Northern depression moving north-eastwards later to Norway; that in south moving in similar direction to Sardinia; Russian anticyclone decreasing in intensity.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The weather of this week has been exceedingly rough and unsettled over the British Islands and north-western Europe, in which region severe gales have been experienced from between South-East and South-West. The barometer has been unusually low (on the 13th it fell to 28·08 ins. in the north of Ireland), the gradients very steep, rainfall has been very heavy and of daily occurrence, thunderstorms have occurred locally, and halos have been seen frequently. In the south of France also, and in some parts of Italy, there have been occasionally some heavy local rains, owing to the appearance of depressions over the northern and eastern parts of the Mediterranean and the Adriatic. Over eastern, south-eastern, central, and south-western Europe, however, the conditions have been much more quiet; of rainfall there has been hardly any, the wind has been light, and temperature low.

At the close of the period there was some improvement observable over the north-western countries, but the distribution of pressure in those regions was still of a very unstable type, and an early renewal of the Southerly and South-Westerly gales seemed probable.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 242.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	30·7	?	42	?	NEWQUAY	32·4	?	43	?
OSWALDKIRK (Yorkshire)	22·2	?	30	?	TORQUAY	27·3 *	?	36 *	?
WORKSOP	21·7	+ 2·7	29	+ 3	ARLEY COTTAGE (County Cavan)	21·5	?	29	?
THURCASTON (Leicestershire)	26·3	+ 7·3	36	+10	GUERNSEY	34·2 *	?	46 *	?
EASTBOURNE	24·7	?	33	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

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VOL. VIII. No. 42.] *Third Series.* WEEK ENDING SATURDAY, 24TH OCTOBER, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 248.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	62	27	52·1	39·9	45·8	1 above.	35	+ 2	6	− 2	1960	+223	627	+ 68
	1. SCOTLAND, EAST -	59	29	52·1	36·2	44·0	1 below.	38	0	16	+ 6	2185	− 25	690	+104
	2. ENGLAND, N.E. - -	57	30	52·4	40·4	46·2	1 below.	36	− 6	4	− 3	2295	− 66	597	+ 89
	3. ENGLAND, EAST -	62	36	56·5	43·4	49·8	2 above.	55	+10	0	− 9	2682	− 53	689	+110
	4. MIDLAND COUNTIES	60	36	54·6	41·4	47·8	1 above.	43	+ 1	2	− 8	2590	− 88	672	+ 94
	5. ENGLAND, SOUTH -	62	35	57·4	46·5	51·7	3 above.	68	+15	0	− 6	2893	− 65	565	+136
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	61	32	53·3	39·9	46·4	0 (average)	40	+ 1	6	− 2	2392	+119	468	+ 41
	7. ENGLAND, N.W. -	59	30	53·1	42·4	47·6	0 (average)	39	− 4	0	− 6	2527	+ 58	449	+ 30
	8. ENGLAND, S.W. -	58	34	54·9	43·9	49·3	0 (average)	51	0	0	− 4	2661	− 85	434	+112
	9. IRELAND, NORTH -	55	31	52·1	39·2	45·4	2 below.	36	− 6	8	+ 1	2481	+ 62	402	+ 35
	10. IRELAND, SOUTH -	58	31	53·3	40·5	46·8	2 below.	40	−10	4	− 1	2734	+ 6	314*	+ 31
	— CHANNEL ISLANDS -	64	45	57·8	49·4	53·5	1 above.	81	+12	0	0	3110	+ 14	162	+ 40

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 248.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	5	9	4 less.	197	+ 5	41·9	+ 4·6	21	+ 3	31	+ 4	1061	− 7	27	0
	1. SCOTLAND, EAST -	4	5	2 less.	147	−11	24·0	− 1·3	27	+ 7	40	+ 8	1200	− 37	31	− 1
	2. ENGLAND, N.E. - -	5	6	1 less.	143	− 3	19·4	− 1·5	22	+ 5	32	+ 6	1132	− 9	29	− 1
	3. ENGLAND, EAST -	6	17	11 more.	151	+ 9	21·5	+ 0·8	25	+ 4	35	+ 4	1307	− 77	34	− 2
	4. MIDLAND COUNTIES-	6	15	8 more.	151	+11	24·2	+ 1·0	25	+ 6	36	+ 8	1229*	− 11	32	− 1
	5. ENGLAND, SOUTH -	6	23	16 more.	147	+11	26·2	+ 4·3	21	0	29	0	1407	+ 59	37	+ 2
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	5	21	9 more.	162	− 3	36·0	− 2·5	27	+ 9	38	+13	1269	+ 44	33	+ 1
	7. ENGLAND, N.W. - -	6	13	4 more.	147	− 5	28·3	+ 0·9	20	+ 4	29	+ 5	1150*	− 65	30	− 1
	8. ENGLAND, S.W. - -	6	25	15 more.	155	− 2	34·6	+ 3·2	27	+ 6	38	+ 6	1462	+ 5	38	0
	9. IRELAND, NORTH -	4	7	1 less.	178	− 2	27·6	− 1·3	36	+19	51	+28	1210	+ 95	31	+ 2
	10. IRELAND, SOUTH -	5	15	6 more.	161	− 2	30·7*	− 0·1	36	+16	52	+23	1329	+ 27	35	+ 1
	— CHANNEL ISLANDS -	6	24	15 more.	154	−12	28·4	+ 3·1	26	0	36	0	1789	+ 80	47	+ 2

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has continued very rough, squally, and unsettled generally, with frequent and heavy falls of rain in all but the northern and north-eastern districts. In several parts of the Kingdom—notably in Ireland—bright intervals of sunshine were experienced, and towards the end of the period a general improvement was in progress.

Temperature has been rather below the mean in "Scotland E." and "England N.E.," as well as over Ireland, and equal to it in the western parts of Great Britain; elsewhere it has exceeded the normal value, the excess in "England S." having been 3°. The highest of the maxima were recorded either on the 21st or 22nd, and ranged from 64° in the "Channel Islands" to 55° in "Ireland N." The lowest of the minima, which were registered on rather irregular dates, ranged from 27° in "Scotland N.," 29° in "Scotland E.," and 30° to 32° in most of the western and northern districts generally, to 36° in "England E." and the "Midland Counties," and to 45° in the "Channel Islands."

Rainfall has been less than the mean in the north and east of Scotland, the north-east of England, and the north of Ireland. In all other parts of the Kingdom there has again been a large excess.

Bright Sunshine has just equalled the mean in "England S." and the "Channel Islands," but has been above it in all other districts. The percentage of the possible amount of duration ranged from a little above 50 in Ireland, and from 40 in "Scotland E.," to 29 in "England S." and "N.W."

Barometer and Wind.—Deep depressions have continued to travel north-eastwards over, or outside, our western and north-western coasts, and have again spread a good deal to the eastward over the Kingdom. Strong winds and gales from between South and South-West have, therefore, prevailed very generally, but have, as a rule, been of greater strength on our south coasts than elsewhere. Towards the end of the week the disturbances were advancing directly over our Islands, but were filling up, and as they moved away to the north-eastward the barometer rose quickly in the west, and the winds shifted to the Northward and North-Westward.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 247 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	53	39	50·4	40·9	45·5	+ 0·9	29	3	6	0·59	−0·38	*	*	*	*
	Stornoway	54	36	51·6	40·9	46·1	+ 1·2	33	3	5	1·45	+0·30	21·0	+ 2·9	31	+ 4
	Wick	56	36	53·6	39·0	46·1	+ 1·1	41	8	4	0·83	+0·13	*	*	*	*
	Lairg ⚓	62	27	52·5	43·6	47·9	+ 3·4	41	0	4	0·24	−0·68	*	*	*	*
	Glencarron ⚓	? 55	34	? 51·6	37·3	? 44·2	+?0·3	? 35	13	5	0·96	−1·14	*	*	*	*
	Fort Augustus ⚓	58	30	53·2	38·2	44·5	− 0·4	42	16	5	0·36	−0·56	22·7	?	33	?
	Fort William ⚓	53	34	51·7	41·3	46·4	+ 0·3	34	2	7	1·59	−0·21	18·9	?	28	?
1. SCOTLAND, E.	Nairn	55	33	53·0	36·0	44·3	− 0·9	41	17	2	0·07	−0·45	*	*	*	*
	Aberdeen	54	33	51·9	38·0	44·7	− 1·2	36	11	3	0·49	−0·17	25·2	+ 5·2	37	+ 8
	Braemar ⚓	51	29	46·6	34·2	40·2	− 2·0	13	29	5	0·74	−0·16	19·8†	? †	29†	?†
	Ochtertyre ⚓	59	29	53·6	35·6	44·5	− 0·1	44	18	6	1·45	+0·46	*	*	*	*
	Leith	57	34	54·7	37·3	45·7	− 1·3	46	13	3	0·06	−0·40	*	*	*	*
	Marchmont ⚓	54	30	52·9	36·3	44·4	+ 0·1	41	16	3	0·15	−0·63	33·0	?	48	?
2. ENGLAND, N.E.	Alnwick Castle	53	35	51·0	39·6	45·1	− 0·9	32	7	3	0·37	−0·33	*	*	*	*
	Durham	56	30	52·9	37·5	45·0	− 0·8	40	13	6	0·23	−0·43	21·3	+ 3·8	31	+ 5
	Shields	55	36	53·4	40·0	46·5	− 0·2	40	6	4	0·13	−0·43	*	*	*	*
	Scarborough ℳ	54	37	50·6	40·9	45·6	− 2·1	30	3	6	0·70	0·00	*	*	*	*
	York	56	34	52·9	39·1	45·8	− 0·9	39	8	6	0·86	+0·26	23·1	+ 6·3	33	+ 9
	Spurn Head	57	42	53·7	45·0	49·2	+ 1·3	50	0	6	0·99	+0·49	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	58	36	55·9	41·5	48·5	+ 1·5	48	1	7	1·69	+1·07	25·6	+ 5·6	37	+ 8
	Yarmouth	58	41	55·6	45·6	50·5	+ 2·4	60	0	6	1·60	+0·92	*	*	*	*
	Geldeston	62	38	57·5	43·9	50·5	+ 2·4	60	0	7	1·59	+0·99	24·6	+ 1·6	35	+ 2
	Cambridge	60	39	57·6	43·1	50·1	+ 2·9	57	0	5	1·49	+0·99	25·9	+ 4·1	36	+ 4
	Rothamsted	59	37	55·9	42·9	49·2	+ 2·7	50	0	6	2·29	+1·62	23·7	?	33	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	57	30	52·4	38·3	45·1	− 1·3	37	10	6	0·73	+0·11	*	*	*	*
	Loughborough	60	39	56·6	42·4	49·3	+ 2·4	51	0	6	1·09	+0·48	*	*	*	*
	Stamford (Ketton Hall)	59	36	55·9	40·9	48·2	+ 1·4	48	3	7	1·38	?	*	*	*	*
	Cheadle ℳ	55	38	52·9	40·3	46·4	+ 1·0	38	5	6	1·10	+0·29	*	*	*	*
	Churchstoke ℳ	57	37	55·1	40·4	47·5	+ 1·7	45	4	6	1·45	+0·67	27·7	+ 8·9	40	+13
	Hereford ℳ	58	40	55·6	43·4	49·3	+ 2·2	51	0	6	1·26	+0·65	*	*	*	*
	Cirencester	56	37	53·4	41·6	47·3	+ 1·0	39	1	6	2·46	+1·78	27·8	+ 6·9	39	+ 9
	Oxford	57	42	55·0	44·1	49·4	+ 1·8	52	0	5	2·10	+1·52	22·4	+ 0·7	32	+ 2
5. ENGLAND, S.	London	61	42	57·4	46·0	51·5	+ 3·2	67	0	5	1·41	+0·84	16·5†	+ 0·5†	23†	0†
	Strathfield Turgiss ℳ	59	35	55·9	40·8	48·1	+ 0·7	48	3	?	?	?	*	*	*	*
	Dungeness	62	48	59·3	50·7	54·9	+ 5·0	90	0	5	0·96	+0·21	*	*	*	*
	Hastings (St. Leonards)	62	45	58·1	49·0	53·4	+ 3·5	80	0	6	1·39	+0·58	18·1	− 7·4	25	−11
	Southampton	60	41	58·2	45·9	51·9	+ 2·9	69	0	5	3·75	+2·03	29·0	+ 5·1	41	+ 8
	Hurst Castle	61	47	58·3	49·6	53·8	+ 3·9	83	0	6	4·03	+3·28	*	*	*	*
	Stowell ℳ	57	39	54·3	43·2	48·6	+ 1·6	46	0	6	2·28	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	61	35	55·3	40·5	47·7	+ 1·7	46	4	6	1·83	+0·02	*	*	*	*
	Glasgow	54	34	51·7	40·3	45·8	+ 0·1	34	5	5	1·09	+0·24	22·6	+ 9·6	33	+15
	Ardrossan	56	39	54·1	44·0	48·9	+ 1·2	48	0	3	1·49	+0·61	*	*	*	*
	Glenlee ⚓	55	32	52·0	35·0	43·3	− 1·6	39	20	6	3·61	+2·36	*	*	*	*
	Douglas (Isle of Man)	55	35	53·3	39·7	46·3	− 1·3	40	6	7	2·35	+1·38	30·3	+ 9·3	43	+13
7. ENGLAND, N.W.	Newton Reigny	54	30	50·9	37·3	43·9	− 0·8	33	13	6	0·89	+0·06	15·1	− 0·9	22	− 1
	Stonyhurst	54	35	51·4	40·9	46·0	− 0·5	33	3	5	1·07	−0·06	23·6	+ 7·2	34	+10
	Blackpool ℳ	59	42	55·6	43·8	49·5	+ 1·8	53	0	3	1·41	+0·49	21·8	+ 4·8	31	+ 6
	Manchester	56	38	53·2	41·7	47·3	+ 0·5	38	1	7	0·94	+0·02	*	*	*	*
	Liverpool Obsy. (Bidston)	55	40	53·1	44·1	48·5	+ 0·6	46	0	6	0·75	−0·03	*	*	*	*
	Llandudno ℳ															
	Holyhead	56	45	54·3	46·7	50·4	+ 0·5	59	0	6	2·64	+1·65	*	*	*	*
8. ENGLAND, S.W.	Llandovery	57	34	55·1	38·3	46·5	− 1·3	47	10	7	3·06	+1·81	*	*	*	*
	Pembroke	56	47	54·4	48·1	51·2	+ 0·6	64	0	7	2·22	+1·32	30·9	+10·0	44	+14
	Arlington (N. Devon)	56	40	53·1	42·4	47·6	− 0·5	39	0	6	2·22	+0·85	*	*	*	*
	Cullompton ℳ	58	36	55·4	41·6	48·3	+ 0·1	46	1	5	2·01	+1·18	27·2	+ 7·4	38	+12
	Falmouth	57	43	55·0	45·2	50·0	− 0·9	56	0	5	2·89	+1·68	27·2	+ 1·9	38	+ 3
	Plymouth	58	40	56·0	45·0	50·3	+ 0·3	58	0	5	3·02	+2·13	23·1	+ 1·4	32	+ 1
	Prawle Point	58	44	55·1	47·0	50·9	+ 0·7	62	0	6	2·09	+1·27	*	*	*	*
9. IRELAND, N.	Malin Head	52	41	50·7	42·3	46·4	− 0·2	31	0	3	0·37	?	*	*	*	*
	Londonderry	54	34	51·6	38·6	44·9	− 1·9	35	10	5	0·44	−0·53	*	*	*	*
	Mullaghmore	55	42	52·0	43·4	47·6	− 1·3	39	0	4	0·75	−0·27	*	*	*	*
	Belmullet	53	39	51·3	43·0	47·0	− 2·9	35	0	7	1·52	?	*	*	*	*
	Markree Castle	53	32	51·5	36·7	43·9	− 2·7	36	15	6	0·86	−0·04	27·3	+ 8·8	39	+13
	Brookeborough	55	32	52·7	36·5	44·4	− 0·7	40	15	3	0·82	−0·10	*	*	*	*
	Armagh	55	33	53·9	37·9	45·7	− 0·3	43	11	2	0·48	−0·20	46·3	+27·5	66	+43
	Donaghadee	55	33	53·6	38·7	45·9	− 1·8	41	9	5	0·77	+0·05	*	*	*	*
	Edgeworthstown	54	31	51·3	35·3	43·1	− 2·2	36	19	4	0·64	−0·06	*	*	*	*
10. IRELAND, S.	Dublin	57	39	53·6	41·7	47·5	− 0·9	40	1	2	0·24	−0·46	45·4	+23·8	65	+34
	Parsonstown	55	34	53·1	38·7	45·7	− 1·1	40	9	3	0·81	+0·11	34·6	+14·9	49	+21
	Kilkenny	56	31	53·4	37·3	45·1	− 2·6	41	13	5	1·03	+0·32	*	*	*	*
	Waterford	58	33	53·1	38·4	45·5	− 4·3	40	10	6	1·46	+0·57	*	*	*	*
	Roche's Point	54	40	53·4	44·1	48·6	− 1·3	46	0	5	2·02	+1·10	*	*	*	*
	Valencia	55	41	53·9	43·6	48·6	− 2·3	46	0	7	2·46	+1·08	28·8	+ 7·1	41	+12
	Killarney	55	36	52·9	40·0	46·3	− 2·5	39	6	6	2·89	?	*	*	*	*
	Foynes	55	33	53·3	40·4	46·7	− 0·7	40	4	5	0·90	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	58	45	55·6	47·4	51·4	− 1·3	66	0	6	1·93	+1·05	*	*	*	*
	Jersey	64	49	60·0	51·3	55·5	+ 3·2	95	0	6	2·95	+2·02	26·2	− 0·6	36	0

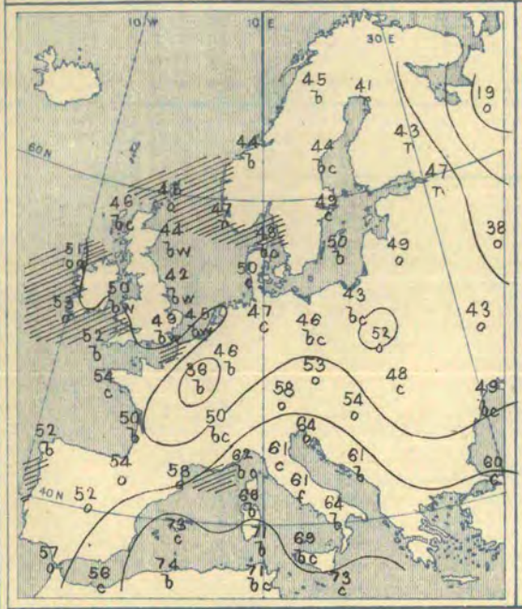
Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 18th October.

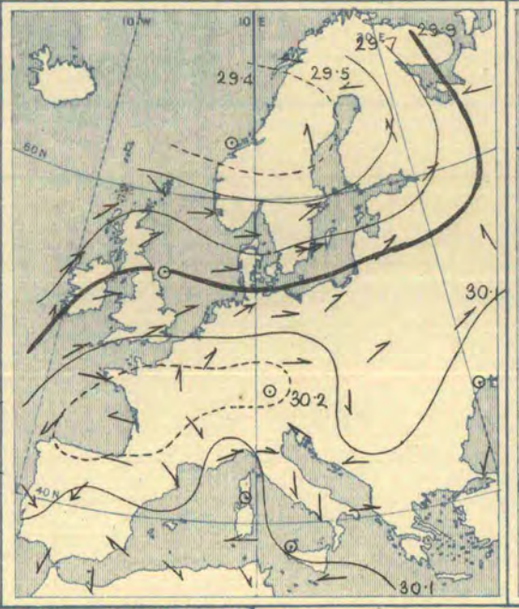
Temperature and Weather. 8 a.m.



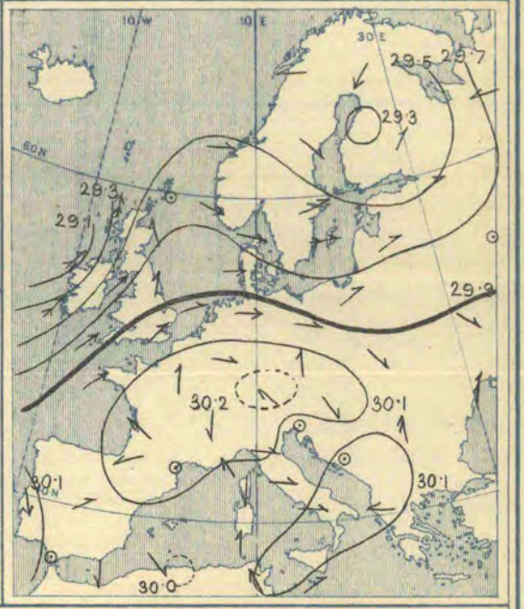
Weather in morning fine and bright over south-eastern, southern, and western Europe, and the greater part of the British Islands; still dull and rainy in the north, and becoming unsettled again on the Atlantic coast of Ireland. Heavy rain falling on our south-west coasts, at Ardrossan, and in Brittany later, and unsettled weather spreading to all parts of the Kingdom. Halos seen in several places. Thunderstorm occurring at Memel in evening.

Temperature in morning exceeding 70° on the southern and exceeding 60° on the northern side of the Mediterranean, very little above 50° on the Atlantic and Channel coasts of France and the British Islands, much lower elsewhere. Below 40° over central Scotland, and as low as (1) 15° at Archangel, 38° at Moscow; (2) 35° at Nicolaieff and 38° at Kharkov; (3) 36° at Nairn, 40° at Wick, 42° at Shields and York; (4) 36° at Paris, 37° at Le Mans. Not touching 60° in any part of Great Britain and Ireland later, but rising to 61° at Jersey, to 68° in the south of France, and to 70° at Rochefort. Exceeding 70° in most parts of southern Europe and exceeding 80° in Algeria.

Barometer and Wind. 8 a.m.



6 p.m.

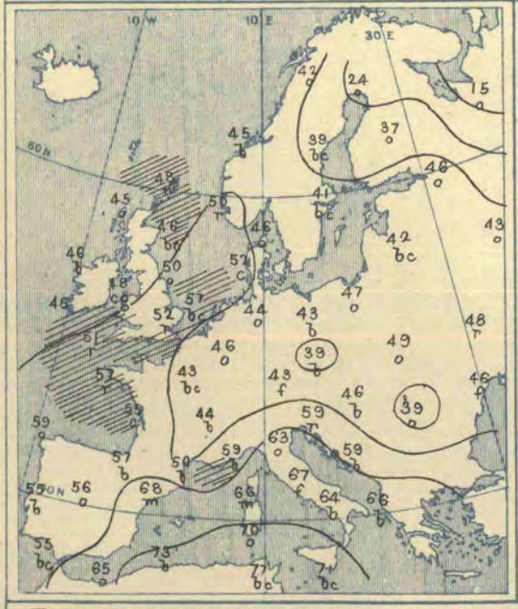


Wind still very light and variable over the Mediterranean, eastern and central Europe; Westerly over the Channel and the northern parts of France and Germany; South-Westerly over the greater part of England. Strong and increasing Southerly winds reported over Ireland, and a well-marked cyclonic circulation over northern Europe—the Westerly winds of which blew hard over the Baltic and south of Norway. Severe Southerly gales on our western coasts later and spreading as a strong, equally wind to all other parts of the Kingdom. No very decided change occurring on Continent.

Barometer highest, 30·2 ins. and more to 30·1 ins. in an anticyclone covering the greater part of south-western and western Europe, and in another over southern Russia and the Black Sea. Lowest, 29·4 ins. and less in a depression over Scandinavia; 29·7 ins. and less off our own north-western coasts. Scandinavian disturbance subsequently moving eastwards to Finland, but deep depression approaching our western coasts and barometer falling rapidly in Ireland.

Monday, 19th October.

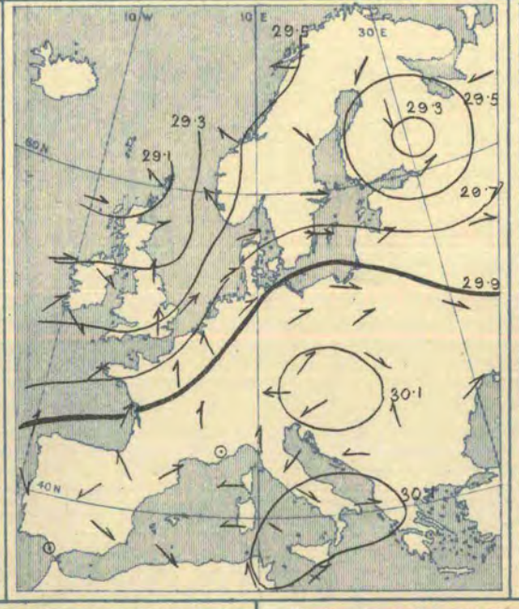
Temperature and Weather. 8 a.m.



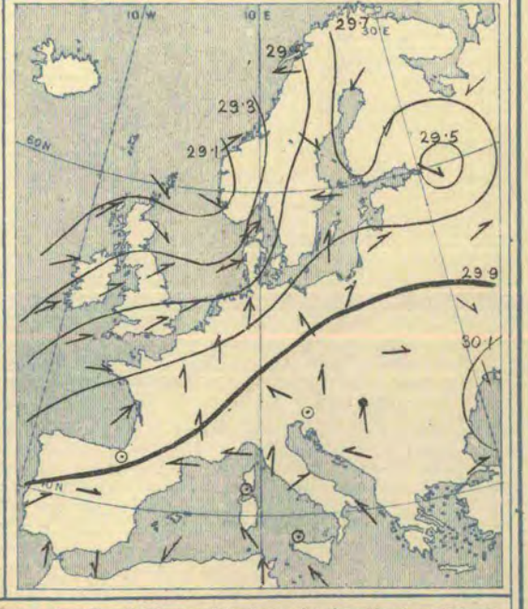
Weather dull and rainy over England and the north of France, as well as in the Shetlands, the west of Norway, and several parts of Russia. Fine in most other localities, but showery in the north of Ireland and foggy in several parts of central Europe. Considerable amounts of rain falling during day over the south of England and the north of France, as well as in Scandinavia. Lunar halo seen in London at night, lightning at Roche's Point, and an aurora in the north of Scotland.

Temperature highest, 77° at La Calle, 73° at Algiers, 71° at Malta, 70° at Cagliari, and 68° at Barcelona; above 60° in many parts of southern Europe, and above 55° at some of the Channel stations. Lowest, 15° at Archangel, 24° at Haparanda, 33° at Uleaborg, and 37° at Kuoplo; below 40° in the northern parts of Sweden and Russia, as well as in isolated parts of central Europe; as low as 41° at Parsonstown. Daily maxima below 55° in most parts of the United Kingdom, but thermometer exceeding 65° in the south of France, and exceeding 70° in all other parts of southern Europe, the highest reading of all being 79° at Palermo.

Barometer and Wind. 8 a.m.



6 p.m.



Wind moderate from the Westward or South-Westward in the west and north of our Islands, strong to a gale from the Southward over the Channel, the south-east of England, and the North Sea. Light or moderate from the South-Westward over Denmark, Germany, and the Baltic Provinces, but Northerly or North-Easterly over Lapland. Light and variable over southern Europe and the Mediterranean. Gale in Channel subsiding later, but wind beginning to back again on our western coasts.

Barometer highest, 30·1 ins. and upwards over Austria, and also over southern Italy and the adjacent parts of the Mediterranean; 30·0 ins. and upwards over the whole of central and southern Europe. Lowest, 29·1 ins. and less in a depression lying off the north of Scotland; 29·3 ins. and less in a small system lying over Finland. Former disturbance subsequently travelling away in a north-easterly direction, but new depression beginning to advance from the Atlantic. Low-pressure system over Finland moving slowly south-eastwards.

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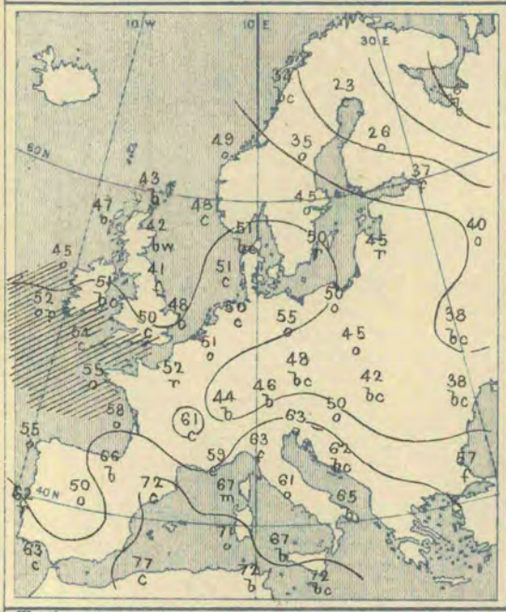
Tuesday, 20th October.

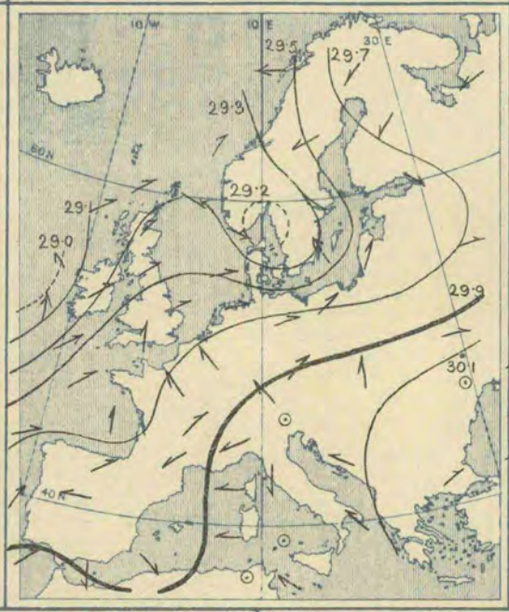
Temperature and Weather. 8 a.m.

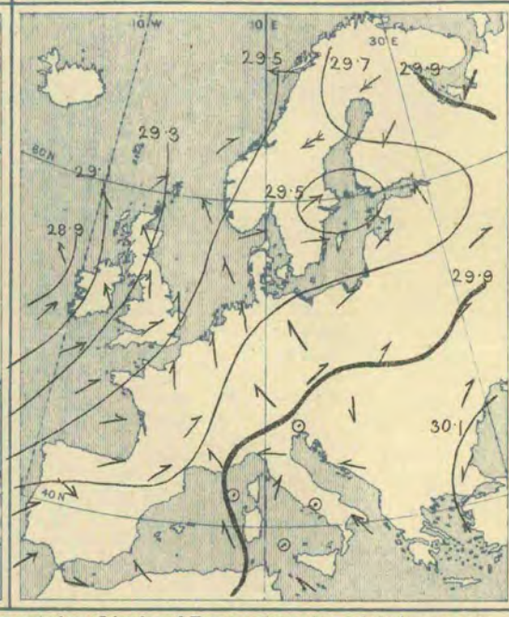


Weather fair over the greater part of western Europe, but showery in the south-west of Ireland. Dull and rainy over the Baltic and the south of Sweden, but fine in most parts of central and southern Europe, with, however, fog in some localities. Heavy rain falling during day in many parts of our Islands, France, and Algeria, with thunder and lightning in several places. Severe snowstorms occurring at some of the Swedish stations.

Temperature highest, 77° at Algiers, 72° at Barcelona, Tunis, and Malta, 71° at Cagliari, and 69° at La Calle; above 60° in most parts of southern Europe. Lowest, 6° at Archangel, 23° at Haparanda, 25° at Uleaborg, 26° at Kuopio, and 32° at Helsingfors; below 40° over Russia and the north of Scandinavia generally, and very little above that point over the north-eastern and central parts of Great Britain. Daily maxima below 55° at many of our western and northern stations, and below 60° in nearly all parts of the United Kingdom; thermometer exceeding 70° over southern Europe generally, the highest readings of all being 82° at Sanguinaire, 80° at Perpignan, and 79° at Palermo.

Barometer and Wind. 8 a.m. and 6 p.m.



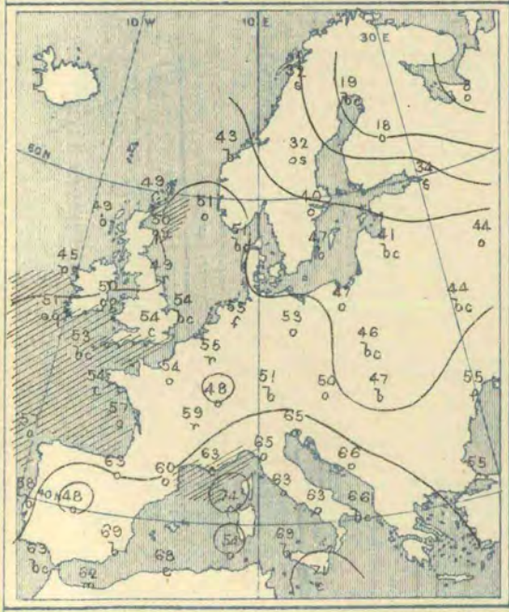


Wind Southerly over the greater part of our Islands and France; strong to a gale in force on our extreme south-west coasts. Moderate from the Westward or South-Westward over Denmark, Germany, and the south of Norway; Easterly or North-Easterly over the northern parts of Russia and Scandinavia. Light and variable over the central and southern parts of Europe. No important change occurring during day, but North-Easterly gale setting in over the Gulf of Bothnia.

Barometer highest, 30·1 ins. and upwards in a large anticyclone lying over Turkey, the Black Sea, and the south of Russia; 29·8 ins. and upwards in another area lying over the north of Russia. Lowest, 29·0 ins. and less in a depression to the westward of Ireland; 29·2 ins. and less in another system lying over the south of Scandinavia. Former disturbance subsequently spreading eastwards over our Islands; latter system moving eastwards and partially filling up.

Wednesday, 21st October.

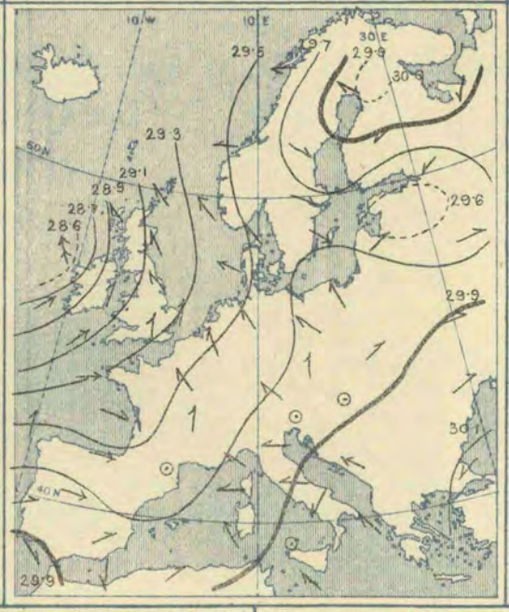
Temperature and Weather. 8 a.m.

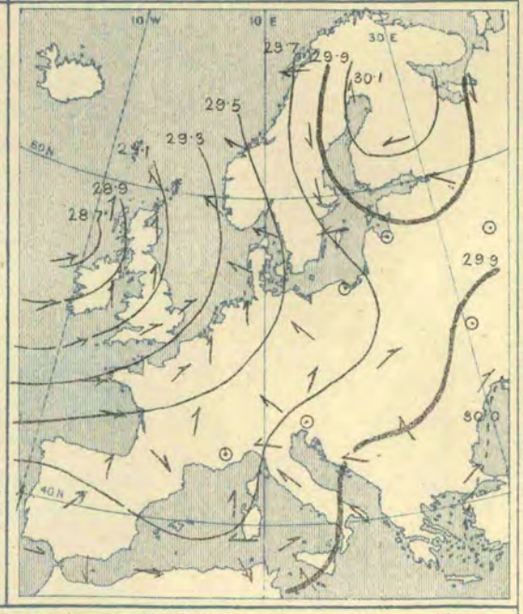


Weather still changeable and showery over the greater part of our Islands; cloudy at most of the Continental stations, with rain and fog at some of the French and German stations and snow in many parts of Finland and Scandinavia. Fine over eastern Germany and the south of Italy, as well as in Algeria. Rain falling during day in nearly all parts of western and southern Europe—heavily in France, northern Italy, and the south of England, with thunder and lightning in places.

Temperature highest, 71° at Malta, 69° at Palermo, 68° at Algiers, and 66° at Lesina; above 60° in most parts of southern Europe, and above 55° on the south-east coasts of England. Lowest, 8° at Archangel, 17° at Uleaborg, 18° at Kuopio, and 19° at Haparanda; below the freezing point over the northern parts of Russia and Scandinavia generally. Rising during day to about 60° over the central and southern parts of England, to 65° or more over Germany and the southern parts of France, and to 75° or more in Italy and Algeria, the highest reading of all being 86° at Palermo.

Barometer and Wind. 8 a.m. and 6 p.m.





Wind strong from the Southward or South-Westward in the west and south of our Islands, moderate from the same quarters over the Bay of Biscay and the western parts of the Iberian Peninsula. South-Easterly over the northern parts of our Islands, as well as over the North Sea, Norway, Denmark, Germany, and Italy; strong in force in many places, with a gale in the north of Ireland. Easterly over the northern parts of Russia and Scandinavia; variable over the south of Russia, and also in Algeria. No important change occurring during day.

Barometer highest, (1) 30·1 ins. and upwards over Asia Minor; (2) 29·9 ins. to 30·0 ins. over Lapland; (3) 29·9 ins. and upwards over the southern parts of the Iberian Peninsula. Lowest, 28·6 ins. and less in a deep depression lying off the west of Ireland; 29·6 ins. and less in a shallow system lying over the Baltic Provinces. Depression in west subsequently moving slowly northwards and barometer rising in the west and south of our Islands. Disturbance over Baltic Provinces entirely filling up.

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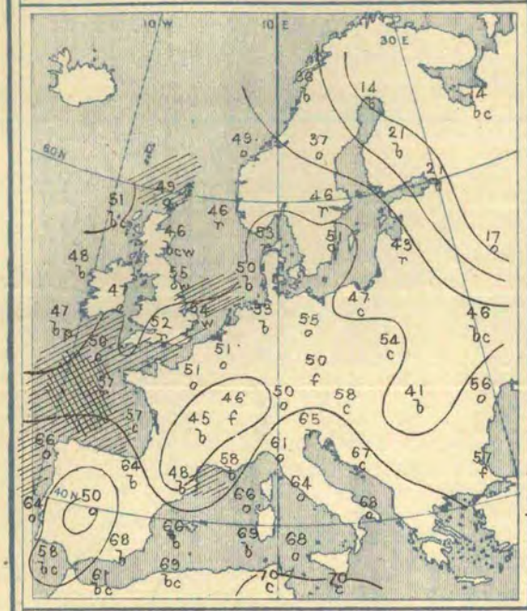
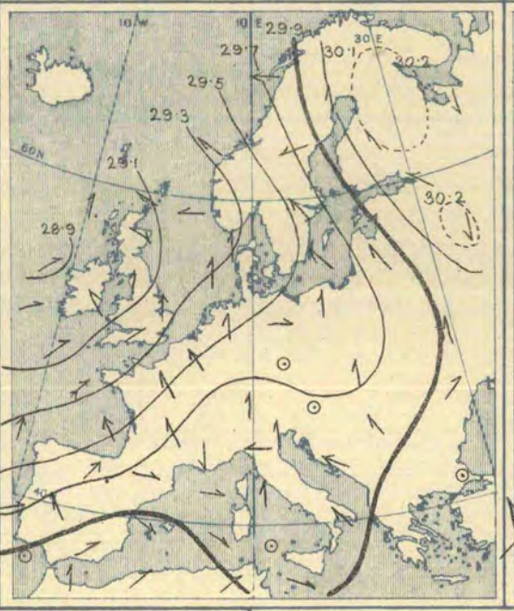
Thursday, 22nd October.

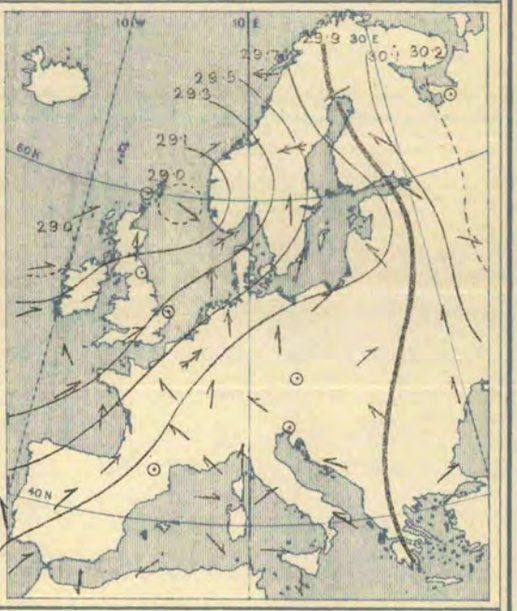
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather rainy over the greater part of England and the north of France, as well as over Denmark, the south of Scandinavia, and the northern parts of the Adriatic. Fine and bright at most of the Irish and Scotch stations, as well as in many parts of Russia, Spain, and the south of France, but dull in Italy. Large quantities of rain falling during day over England, the north of France, and the south of Scandinavia, and heavy snow at Hernösand.

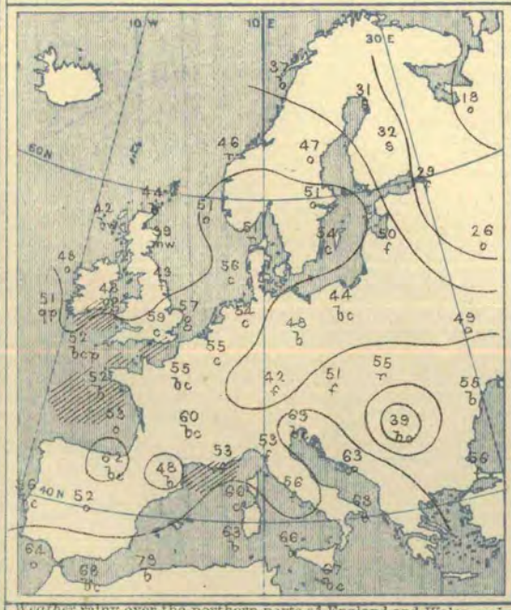
Temperature highest, 70° at Tunis and Malta, 69° at Cagliari and Algiers, and 68° at Brindisi and Palermo; above 60° in most parts of southern Europe, and above 55° at some of the Channel stations. Lowest, 14° at Archangel and Uleaborg, 17° at Moscow, 21° at Kuopio and St. Petersburg, and 26° at Haparanda; below the freezing point over a considerable part of Russia, below 40° at some of the Irish stations. Rising later to between 60° and 64° in the extreme south and south-east of England, but remaining below 55° at most of our western and northern stations. Exceeding 70° over southern Europe, the highest reading of all being 79° at Palermo.

Wind strong to a gale from the Southward over the Channel and Bay of Biscay, and light or moderate from the same quarter over Denmark, the Netherlands, and the northern parts of the United Kingdom. Moderate to strong from the Eastward and South-Eastward over Scandinavia, Finland, and the northern parts of the Baltic. Light from the Southward over the south of Russia and from the South-Eastward in Italy, but variable over central Russia. Subsequently shifting to the Eastward at some of the Channel stations; increasing to a gale from the same quarter over the northern parts of Scandinavia.

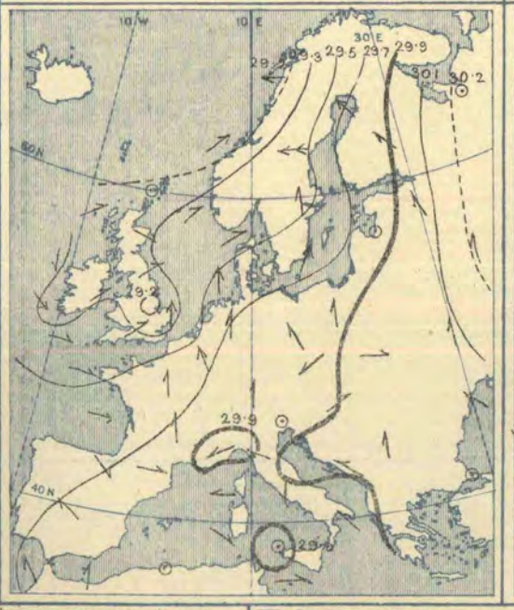
Barometer highest, 30·1 ins. to 30·2 ins., or a little more, in a large anticyclone lying over central and northern Russia; 29·9 ins. and upwards over Algeria and the south of Spain. Lowest, 28·9 ins. and less in a depression lying off the north-west of Ireland. Several small secondary disturbances passing over England and the North Sea during day, but main depression slowly filling up.

Friday, 23rd October.

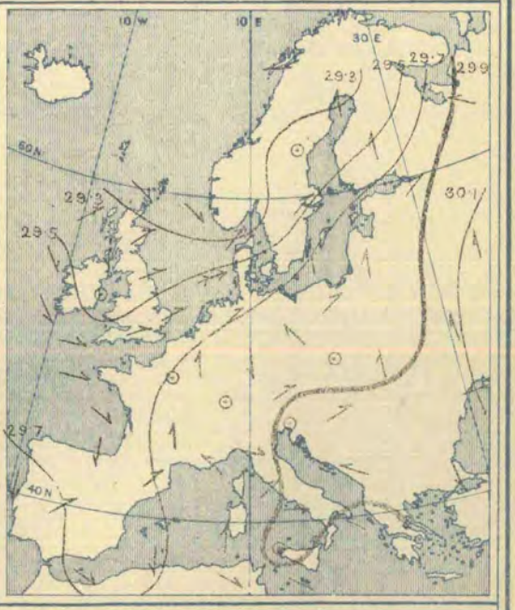
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather rainy over the northern parts of England and Wales, and showery on our extreme south-west coasts, but fine in most other parts of our Islands, as well as over France and the greater portion of central and southern Europe. Dull at most of the Russian and Scandinavian stations, with rain in several places, snow in Lapland and Finland, and a thunderstorm at Nicolaieff. Fog reported over Austria and south Germany. Showers falling during day in many parts of the United Kingdom. Lightning seen at Prawle Point at night, and bright aurora in the northern parts of Ireland and Scotland.

Temperature highest, 73° at Algiers, 69° at Barcelona, 68° at Brindisi, and 67° at Malta; above 60° over southern Europe generally, and as high as from 57° to 59° over the east and south-east of England. Lowest, 18° at Archangel, 26° at Moscow, 29° at St. Petersburg, and 31° at Uleaborg; below 40° in the north and east of Scotland. Daily maxima below 55° in the north and west of our Islands, but thermometer touching 60° in the south-east of England, exceeding 65° in France, and exceeding 70° in Spain, Italy, and Algeria, the highest European reading of all being 79° at Palermo.

Wind light or moderate from the North-Westward in the west of Ireland, moderate to strong from the Westward over the Channel and Bay of Biscay, light from the South-Westward in the northern parts of our Islands. Southerly or South-Easterly over the greater part of Scandinavia, Denmark, Germany, Russia, and Italy, but Easterly in the northern parts of Norway and Sweden, with a gale at Hernösand. Variable in Spain, Austria, and the south of Russia. North-Westerly breezes subsequently setting in on all our western coasts. South-Westerly gale springing up at some of the Danish stations.

Barometer highest, 30·3 ins. and upwards in an anticyclone lying over central Russia. Lowest, 29·2 ins. and less in a large area lying to the northward of our Islands and the westward of Norway, as well as in a small depression lying over Lincolnshire. Low-pressure systems subsequently moving away north-eastwards and barometer rising in all parts of western Europe. Shallow depression beginning to appear over Algeria in evening.

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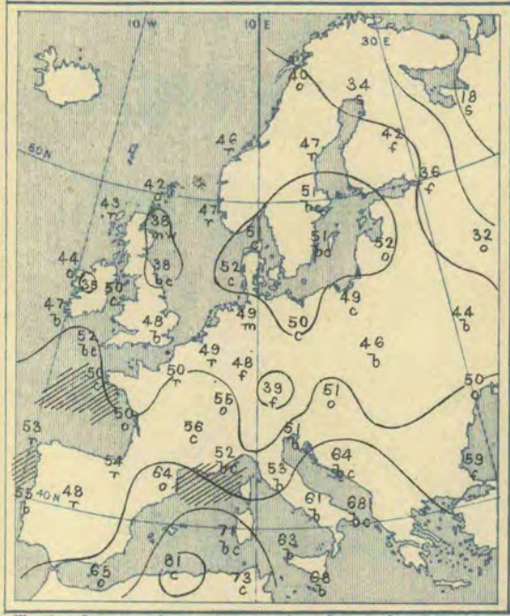
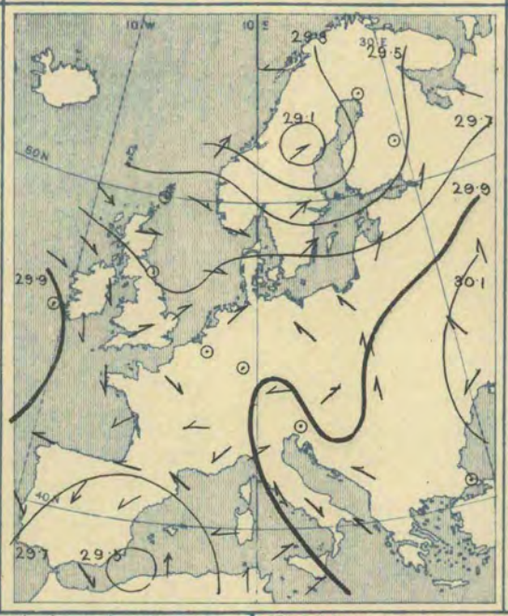
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 24th October.

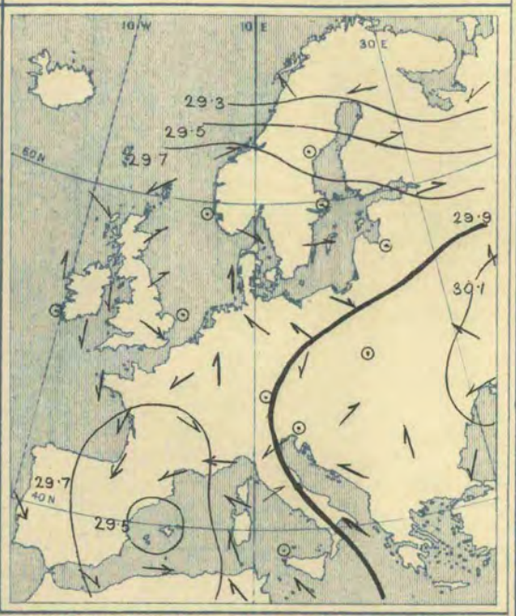
Temperature and Weather. — **8 a.m.**



Barometer and Wind. — **8 a.m.**



6 p.m.



Weather fine over the greater part of our Islands, but dull and rainy in the north of Scotland; fine also over Italy, Austria, and the south of Russia. Dull elsewhere, with rain at several of the Scandinavian, German, French, and Spanish stations, and snow in Lapland and northern Russia. Fog reported in some parts of central Europe. Heavy rain falling later over Algeria and the south of France (with a thunderstorm at Algiers), the largest amounts measured next morning being 1·8 ins. at Marseilles and 1·7 ins. at Croisette.

Temperature highest, 81° at Algiers, 74° at Tunis, 73° at Sfax, and 71° at Cagliari; above 60° at most of the Mediterranean and Adriatic stations, above 50° over the Baltic. Lowest, 18° at Archangel, 32° at Moscow, 34° at Uleaborg, and 36° at St. Petersburg; below 40° over central Ireland, and also in the north-east of Great Britain. Daily maxima below 60° in all parts of our Islands, and below 50° in the Shetlands, Hebrides, and extreme north of Ireland. Exceeding 70° in Italy, Algeria, and the south of France, the highest reading of all being 81° at Palermo.

Wind light or moderate from the North-Westward over the greater part of our Islands, but South-Westerly in the east and south-east of England. Strong from the South-Westward at several of the Baltic and Scandinavian stations, light from the Southward over the greater part of Russia. Variable over Italy and central Europe; cyclonic circulation reported over Spain, Algeria, and the western parts of the Mediterranean. Subsequently falling light and variable over the western parts of the United Kingdom; strong Easterly winds setting in over the extreme south of France.

Barometer highest, 30·1 ins. to 30·3 ins. in an anticyclone lying over the southern parts of Russia; 29·9 ins. and upwards in another high-pressure system lying to the south-westward of Ireland. Lowest, 29·1 ins. and less in a well-marked depression lying over central Sweden; 29·5 ins. and less in another disturbance lying over Algeria. Swedish depression subsequently travelling away to the north-eastward; disturbance over Algeria advancing northwards towards the east of Spain.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia: that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

At the beginning of the week a large anticyclone covered the whole of central and southern Europe, while depressions were shown respectively over Finland and to the westward of our Islands, the disturbance in the latter region being sufficiently deep to produce gales from the Southward over nearly the whole of the United Kingdom. The centre of the system ultimately travelled away to the north of Scotland, but the main depression was accompanied by numerous secondaries, and, as these moved eastwards over our Islands and France, the anticyclone over the central and southern countries gradually broke up. On the 20th, however, a new high-pressure system appeared in the far north and for the remainder of the week the maximum barometer readings were observed over Russia. In the more western countries the weather continued to be affected by a series of depressions, the centres of which passed along or over our own western and northern coasts. The weather in these regions was, therefore, very stormy and unsettled, with Southerly gales and heavy rains in various parts of our Islands, and with Easterly gales and snowstorms in Scandinavia. At the close of the period the long series of Atlantic depressions had apparently come to an end, and some improvement in the weather was reported over our Islands. Over southern Europe, however, the conditions were beginning to be affected by a well-marked disturbance which was advancing northwards from Algeria, and which was occasioning very heavy rainfall over Spain and the south of France.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 248.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	30·2	?	44	?	NEWQUAY	23·5	?	33	?
OSWALDKIRK (Yorkshire)	22·0	?	31	?	TORQUAY	26·1 *	?	36 *	?
WORKSOP	16·7	− 2·1	24	− 2	ARLEY COTTAGE (County Cavan)	34·5	?	49	?
THURCASTON (Leicestershire)	29·8	+12·0	43	+17	GUERNSEY	33·2 *	?	46 *	?
EASTBOURNE	19·3	?	27	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

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VOL. VIII. No. 43.] *Third Series.* WEEK ENDING SATURDAY, 31ST OCTOBER, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 254.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH -	56	21	49·7	34·3	41·7	2 below.	22	− 7	30	+19	1982	+215	657	+ 86
1. SCOTLAND, EAST -	55	20	49·2	32·2	40·5	3 below.	20	−13	38	+26	2205	− 38	728	+129
2. ENGLAND, N.E. - -	57	29	50·4	39·9	45·0	0 (average)	30	− 6	6	− 2	2325	− 73	603	+ 89
3. ENGLAND, EAST -	56	28	52·2	40·1	46·0	0 (average)	36	− 3	5	− 5	2718	− 58	694	+108
4. MIDLAND COUNTIES	55	24	51·0	37·3	44·0	1 below.	34	− 3	13	+ 1	2634	− 81	685	+ 99
5. ENGLAND, SOUTH -	58	26	52·4	41·8	47·0	0 (average)	36	−11	1	− 6	2929	− 76	566	+132
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST -	57	25	49·8	34·7	42·0	3 below.	22	−12	20	+11	2414	+105	488	+ 53
7. ENGLAND, N.W. -	58	26	51·4	39·0	45·0	1 below.	34	− 4	8	+ 1	2561	+ 53	457	+ 33
8. ENGLAND, S.W. -	57	30	51·8	42·4	47·0	1 below.	35	−12	0	− 4	2696	− 99	434	+109
9. IRELAND, NORTH -	56	24	50·8	35·9	43·1	3 below.	33	− 2	17	+ 9	2513	+ 53	419	+ 44
10. IRELAND, SOUTH -	56	26	51·8	37·5	44·5	3 below.	36	− 9	13	+ 7	2770	− 6	327	+ 39
— CHANNEL ISLANDS -	61	39	54·0	47·5	50·6	1 below.	60	− 3	0	0	3170	+ 8	162	+ 40

Rainfall.

DISTRICTS. (See p. 254.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH -	0	—	12 less.	197	0	41·9	+ 3·4
1. SCOTLAND, EAST -	1	less than ½	7 less.	148	−14	24·0	− 2·1
2. ENGLAND, N.E. - -	1	less than ½	6 less.	144	− 6	19·4	− 2·1
3. ENGLAND, EAST -	3	4	2 less.	154	+ 7	21·9	+ 0·6
4. MIDLAND COUNTIES-	3	3	4 less.	154	+10	24·5	+ 0·7
5. ENGLAND, SOUTH -	2	3	4 less.	149	+ 9	26·5	+ 3·9
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST -	0	—	12 less.	162	− 7	36·0	− 3·7
7. ENGLAND, N.W. - -	0	less than ½	9 less.	147	− 9	28·3	0·0
8. ENGLAND, S.W. - -	2	2	9 less.	157	− 4	34·8	+ 2·3
9. IRELAND, NORTH -	0	—	9 less.	178	− 6	27·6	− 2·1
10. IRELAND, SOUTH -	1	less than ½	9 less.	162	− 5	30·7	− 1·0
— CHANNEL ISLANDS -	2	5	5 less.	156	−15	28·9	+ 2·8

Bright Sunshine.

DISTRICTS. (See p. 254.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH -	37	+21	58	+33	1098	+ 11	28	+ 1
1. SCOTLAND, EAST -	25	+13	38	+16	1225	− 30	31	− 1
2. ENGLAND, N.E. - -	16	0	24	− 3	1148	− 5	29	0
3. ENGLAND, EAST -	24	+ 3	36	+ 3	1331	− 71	34	− 2
4. MIDLAND COUNTIES-	26	+ 9	39	+12	1255	0	32	0
5. ENGLAND, SOUTH -	29	+11	43	+15	1436	+ 72	37	+ 2
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST -	28	+14	42	+19	1297	+ 55	33	+ 1
7. ENGLAND, N.W. - -	36	+22	55	+33	1186	− 43	30	− 1
8. ENGLAND, S.W. - -	30	+14	44	+17	1492	+ 19	38	0
9. IRELAND, NORTH -	38	+19	58	+29	1248	+114	32	+ 3
10. IRELAND, SOUTH -	34	+15	50	+22	1363	+ 43	35	+ 1
— CHANNEL ISLANDS -	39	+15	57	+24	1828	+ 98	48	+ 3

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather has been finer and drier than for a long while past, especially over the more northern parts of the Kingdom, where scarcely any rain has fallen. Fog or mist has, however, prevailed in various parts of the Kingdom.

Temperature has been a little below the mean in all but the eastern and southern parts of England, the deficiency being greatest (about 3°) in Ireland and Scotland. The highest readings, which occurred on various dates, ranged between 55° and 58° in most districts, but in the "Channel Islands" the thermometer rose to 61°. The lowest values were recorded on one or other of the three concluding days, when sharp frost was experienced in most districts. In the north and east of Scotland the thermometer fell to 20° or 21°, and in the "Midland Counties" and "Ireland N." to 24°; in the "Channel Islands" the lowest reading was 39°.

Rainfall has amounted to about half the average in the eastern, central, and southern parts of England, but in all the more northern districts the fall has been quite inappreciable, and at many stations there has been absolutely none.

Bright Sunshine has been considerably more than the mean in all districts excepting "England E." The percentage of the possible duration has exceeded 40 in most parts of the Kingdom, and has exceeded 50 in Ireland, the north-west of England, the north of Scotland, and the Channel Islands.

Barometer and Wind.—During this period a large anticyclone has gradually extended over north-western Europe from the northward, Easterly winds being reported in all the more southern parts of our Islands, but variable breezes in the north. In the Channel and south of Ireland the wind has blown with considerable strength, and has at times reached the force of a gale in exposed places.

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II.—DATA from which the SUMMARY on page 253 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	52	39	50·0	42·1	45·9	+ 2·6	27	0	1	0·01	−0·97	*	*	*	*
	Stornoway	53	29	51·6	34·0	42·5	− 1·2	37	22	1	0·02	−1·10	35·3	+19·5	56	+30
	Wick	53	32	50·3	37·9	43·9	0·0	31	11	0	-	−0·72	*	*	*	*
	Lairg ⚓	56	21	49·5	29·9	39·4	− 3·5	21	46	1	0·01	−0·90	*	*	*	*
	Glencarron ⚓	52	29	49·8	33·2	41·4	− 1·2	22	36	0	—	−2·20	*	*	*	*
	Fort Augustus ⚓	52	25	48·2	30·3	39·0	− 4·6	17	44	0	—	−0·92	34·2	?	53	?
	Fort William ⚓	51	27	48·2	32·4	40·1	− 4·6	17	37	0	0·01	−1·81	41·0	?	64	?
1. SCOTLAND, E.	Nairn	53	24	49·7	29·9	39·5	− 4·3	22	46	1	0·01	−0·51	*	*	*	*
	Aberdeen	52	31	49·9	34·3	41·9	− 2·5	22	31	1	0·01	−0·69	28·0	+ 9·8	44	+16
	Braemar ⚓	48	20	45·8	27·0	36·1	− 4·6	11	53	0	—	−0·90	23·8†	? †	37†	? †
	Ochtertyre ⚓	55	27	50·9	33·4	41·9	− 0·9	25	35	0	—	−1·00	*	*	*	*
	Leith	53	30	49·7	32·7	41·0	− 4·7	22	37	0	—	−0·49	*	*	*	*
	Marchmont ⚓	53	30	49·4	35·7	42·4	− 0·5	29	18	2	0·04	−0·76	31·3	?	48	?
2. ENGLAND, N.E.	Alnwick Castle	49	34	47·6	39·9	43·6	− 1·1	20	6	1	0·06	−0·67	*	*	*	*
	Durham	51	29	49·3	37·1	43·0	− 1·3	28	14	1	0·04	−0·61	10·2	− 5·9	15	−10
	Shields	52	36	51·0	39·9	45·3	+ 0·1	32	6	0	0·02	−0·56	*	*	*	*
	Scarborough ⚓	52	33	50·0	41·0	45·4	− 0·8	28	3	1	0·05	−0·65	*	*	*	*
	York	54	31	51·6	35·4	43·3	− 1·7	37	18	1	0·03	−0·57	18·9	+ 3·9	29	+ 6
	Spurn Head	57	41	52·7	45·9	49·2	+ 3·2	50	0	1	0·02	−0·50	*	*	*	*
3. ENGLAND, E.	Hillington ⚓	54	28	51·9	38·7	45·1	− 0·3	36	9	3	0·41	−0·20	19·8	+ 0·8	30	+ 3
	Yarmouth	55	40	52·6	44·6	48·5	+ 1·8	46	0	3	0·21	−0·49	*	*	*	*
	Geldeston	56	31	52·8	40·9	46·7	+ 0·2	38	3	4	0·41	−0·19	20·3	− 1·2	30	− 1
	Cambridge	55	28	52·6	38·1	45·1	− 0·5	38	11	3	0·49	−0·01	26·4	+ 6·6	39	+ 8
	Rothamsted	54	28	51·1	38·3	44·5	− 0·4	33	10	3	0·42	−0·23	30·5	?	45	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	55	28	52·1	34·9	43·3	− 1·6	39	20	1	0·04	−0·58	*	*	*	*
	Loughborough	55	25	52·1	36·0	43·8	− 1·5	38	17	3	0·17	−0·42	*	*	*	*
	Stamford (Ketton Hall)	53	24	52·6	37·0	44·6	− 0·6	39	14	3	1·00	?	*	*	*	*
	Cheadle ⚓	52	32	50·1	38·8	44·3	+ 0·5	30	9	2	0·03	−0·78	*	*	*	*
	Churchstoke ⚓	50	28	48·0	35·1	41·4	− 3·3	17	27	4	0·07	−0·73	20·1	+ 3·3	30	+ 5
	Hereford ⚓	52	30	50·5	37·8	44·0	− 1·6	32	12	2	0·28	−0·34	*	*	*	*
	Cirencester	52	29	50·9	39·6	45·1	+ 0·4	32	7	2	0·30	−0·39	32·7	+12·5	48	+20
	Oxford	53	28	51·6	39·1	45·2	− 0·7	35	8	3	0·21	−0·37	31·0	+11·2	46	+18
5. ENGLAND, S.	London	55	30	53·1	41·1	46·9	+ 0·2	38	3	2	0·55	+0·02	22·0 †	+ 8·0†	32†	+12 †
	Strathfield Turgiss ⚓	55	26	52·2	39·0	45·4	− 0·4	36	8	4	0·38	−0· 0	*	*	*	*
	Dungeness	56	39	52·3	44·9	48·5	+ 0·2	46	0	2	0·22	−0·58	*	*	*	*
	Hastings (St. Leonards)	56	33	51·9	43·0	47·1	− 1·2	36	0	2	0·28	−0·52	32·0	+ 9·2	47	+13
	Southampton	58	32	53·7	40·9	47·1	− 0·5	40	3	2	0·16	−0·56	33·7	+12·7	50	+20
	Hurst Castle	56	39	52·9	43·7	48·2	− 0·5	43	0	2	0·26	−0·50	*	*	*	*
	Stowell ⚓	54	31	51·0	40·3	45·5	− 0·2	32	5	2	0·27	?	*	*	*	* †
6. SCOTLAND, W.	Laudale (Loch Sunart)	57	31	51·7	32·9	42·0	− 2·9	27	25	0	—	−1·90	*	*	*	*
	Glasgow	50	23	45·4	34·6	39·8	− 4·5	10	27	0	—	−0·85	12·4	+ 1·4	19	+ 3
	Ardrossan	51	34	49·7	36·7	43·0	− 3·2	29	15	0	—	−0·89	*	*	*	*
	Glenlee ⚓	54	25	50·7	30·3	40·2	− 3·3	24	45	1	0·02	−1·27	*	*	*	*
	Douglas (Isle of Man)	53	32	51·3	39·1	45·0	− 1·3	33	8	0	—	−1·00	43·0	+24·0	65	+37
7. ENGLAND, N.W.	Newton Reigny	52	26	50·0	31·8	40·6	− 2·6	22	39	1	0·01	−0·82	43·1	+29·0	65	+44
	Stonyhurst	53	32	49·8	38·2	43·8	− 1·2	29	11	0	—	−1·10	40·6	+25 8	62	+40
	Blackpool ⚓	58	37	55·0	41·5	48·1	+ 2·0	45	1	2	0·12	−0·77	28·6	+13·7	43	+20
	Manchester	54	32	51·2	39·1	45·0	− 0·1	33	8	0	—	−0·92	*	*	*	*
	Liverpool Obsy. (Bidston)	53	35	50·3	38·9	44·4	− 2·3	30	9	0	—	−0·75	*	*	*	*
	Llandudno ⚓	54	34	51·1	40·6	45·7	− 2·4	32	4	0	—	−0·83	32·2	+18·0	48	+27
	Holyhead	55	39	52·1	42·7	47·3	− 1·6	37	0	0	—	−0·98	*	*	*	*
8. ENGLAND, S.W.	Llandovery	54	30	52·3	37·9	44·9	− 1·3	38	11	3	0·09	−1·16	*	*	*	*
	Pembroke	54	39	51·7	43·0	47·2	− 2·2	36	0	2	0·04	−0·86	37·2	+18·2	55	+26
	Arlington (N. Devon)	52	33	50·0	40·6	45·2	− 1·6	28	4	3	0·21	−1·22	*	*	*	*
	Cullompton ⚓	55	33	52·0	39·7	45·7	− 1·1	36	6	3	0·32	−0·47	30·7	+13·7	45	+21
	Falmouth	57	41	52·4	45·4	48·8	− 0·9	48	0	2	0·28	−0·96	28·7	+ 5·5	42	+ 9
	Plymouth	57	42	52·9	45·6	49·1	+ 0·2	50	0	2	0·06	−0·85	32·4	+13·3	47	+18
	Prawle Point	55	38	51·4	44·6	47·9	− 1·1	41	0	2	0·25	−0·55	*	*	*	*
9. IRELAND, N.	Malin Head	51	39	49·9	41·9	45·8	+ 0·6	27	0	0	—	?	*	*	*	*
	Londonderry	52	31	49·3	33·8	41·3	− 4·3	20	32	0	—	−0·98	*	*	*	*
	Mullaghmore	52	35	50·7	39·3	44·8	− 3·1	31	8	0	—	−1·02	*	*	*	*
	Belmullet	56	37	52·1	39·4	45·6	− 3·2	36	7	0	—	?	*	*	*	*
	Markree Castle	53	25	51·1	29·6	40·0	− 5·1	25	47	0	—	−0·90	41·8	+24·7	63	+38
	Brookeborough	54	26	51·6	31·8	41·4	− 2·5	27	40	0	—	−0·93	*	*	*	*
	Armagh	53	28	50·2	32·7	41·2	− 3·5	23	37	0	0·02	−0·63	29·9	+14·6	45	+22
	Donaghadee	54	32	52·1	42·3	47·1	+ 0·9	36	0	0	—	−0·75	*	*	*	*
	Edgeworthstown	52	24	50·0	32·7	41·1	− 3·0	22	36	1	0·02	−0·71	*	*	*	*
10. IRELAND, S.	Dublin	55	33	51·2	39·9	45·4	− 1·8	33	6	0	—	−0·67	32·9	+12·7	49	+19
	Parsonstown	55	27	51·9	32·3	41·8	− 3·7	28	39	0	—	−0·70	32·0	+13·9	48	+21
	Kilkenny	55	26	51·9	35·3	43·4	− 3·0	38	19	0	—	−0·70	*	*	*	*
	Waterford	54	27	52·3	39·0	45·5	− 3·0	37	8	1	0·01	−0·86	*	*	*	*
	Roche's Point	54	35	52·3	41·0	46·5	− 2·4	36	3	1	0·05	−0·90	*	*	*	*
	Valencia	56	33	54·0	39·7	46·6	− 3·2	42	6	0	—	−1·40	35·4	+15·4	52	+24
	Killarney	54	29	51·7	35·2	43·2	− 4·6	37	19	2	0·04	?	*	*	*	*
	Foynes	52	32	49·0	37·7	43·2	− 3·0	26	12	0	—	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	56	45	53·9	47·9	50·8	− 0·7	62	0	2	0·17	−0·71	*	*	*	*
	Jersey	61	39	54·0	47·0	50·4	− 0·5	59	0	2	0·75	−0·30	39·1	+14·7	57	+24

Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

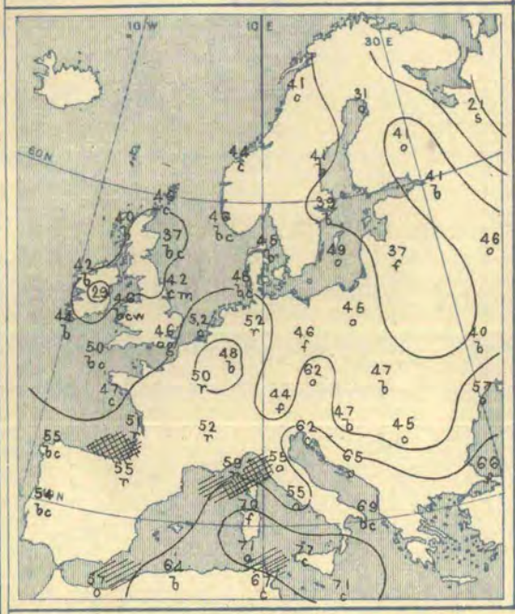
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

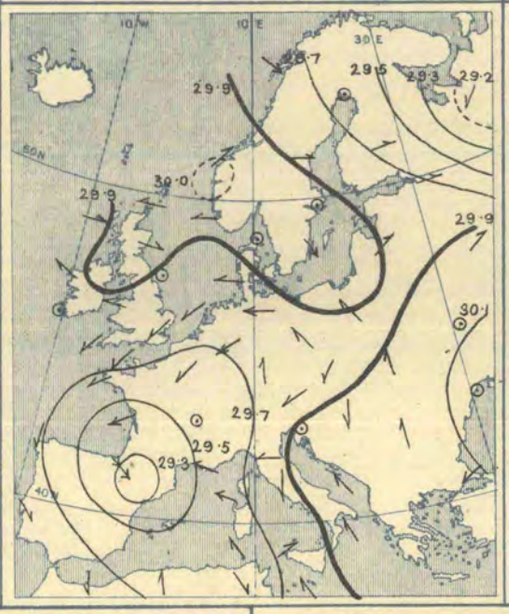
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 25th October.

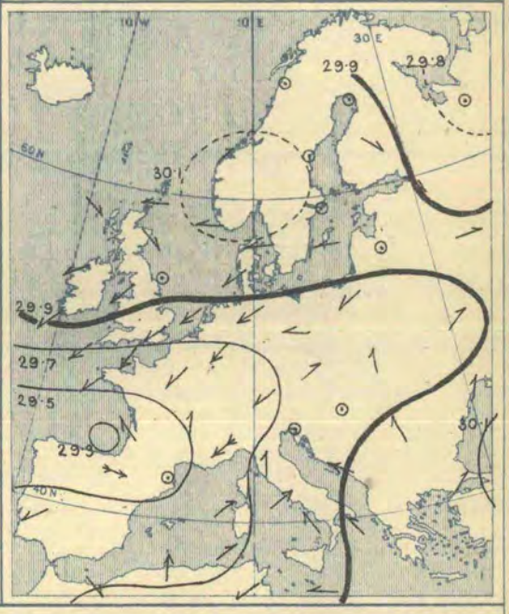
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright over Portugal, Ireland, and Scotland; fair over Scandinavia and the Gulfs of Bothnia and Finland; dull and gloomy over England and north Germany, central Europe, and southern Russia, with fog or haze in many places. Rainy and very unsettled over France, and at some stations in the Netherlands and Algeria. Rain later over France and all the southern parts of our Islands—amounts small at English but very large at the French stations, in Italy, and the north-east of Spain. Falls at some stations exceptionally heavy.

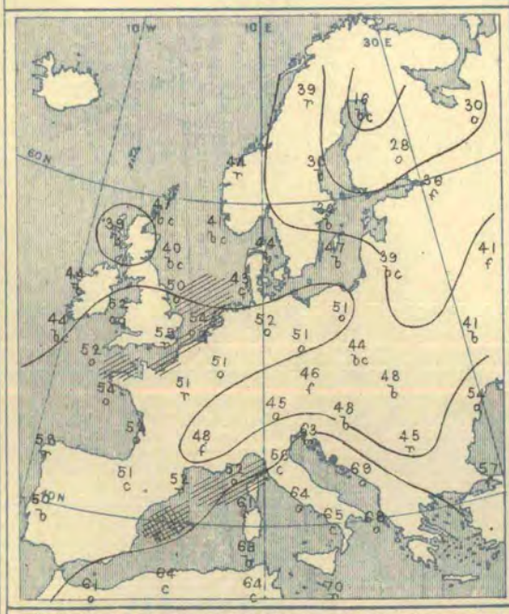
Temperature changing fitfully; much lower in Scotland than of late. Morning reading, 70° or more in Corsica, Sardinia, Sicily, and Malta, and exceeding 60° over south-eastern Europe and at several Mediterranean stations. Lowest, (1) 21° at Archangel, 31° at Haparanda; (2) 29° at Parsonstown, 34° at Nairn, 38° at Ardrossan, 36° at Liverpool, 39° at York; (3) 39° at Nicolaieff, 40° at Kieff, 44° at Breslau and Munich. Changing very irregularly later, but rising to 60° and more over Austria and the south of France, and to 75° and more in the south of Italy.

Wind light and very variable over the west and north of our Islands, in Norway, central and south-eastern Europe; mainly North-Westerly over the Baltic. A well-marked cyclonic circulation over France, the Bay of Biscay, and Spain—gales from North-Westward at Biarritz, and from East-South-Eastward at Cape Sicie, moderate but freshening East-North-Easterly winds in the Channel and east of England. Latter winds becoming strong later, and blowing a gale in the Straits of Dover. Strong winds and gales over southern Europe generally, and Southerly to South-Westerly breezes on the southern side of the Mediterranean.

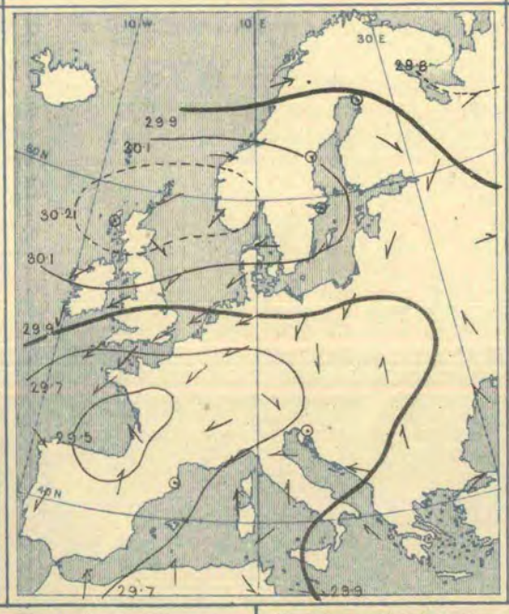
Barometer highest, 30·1 ins. and more to 30·0 ins. in a large anticyclone over south-eastern Europe; 30·0 ins. to 29·9 ins. in another of irregular form over Scotland and southern parts of Norway and Sweden. Lowest, 29·2 ins. and less in a depression over northern Russia; 29·3 ins. and less in another—well marked—lying over the Pyrenees, to which region it had advanced from the Algerian coast. Latter system filling up over France later, but new one advancing quickly towards that country from the West-South-Westwards.

Monday, 26th October.

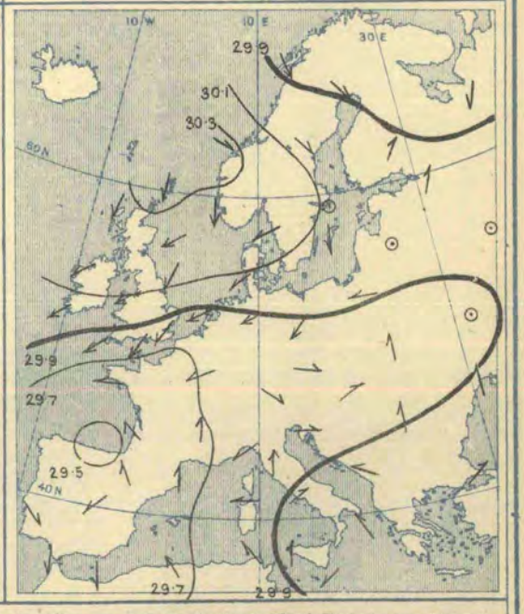
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright at nearly all stations in south-eastern and central Europe, as well as those on the southern side of the Mediterranean—also over Ireland, Scotland, the southern half of Scandinavia, and the Baltic; cloudy and very unsettled elsewhere, with constant rain over the southern counties of England; rain or fog in various parts of France, as well as over the northern half of Norway. Rain continuing over the south of our Islands and in France during day, the largest falls being 1 to 2 ins. in the south of France and about 0·35 in. at Jersey, London, and Cambridge.

Temperature higher over the United Kingdom, lower over northern, central, and south-eastern Europe than on Sunday, Malta being the only station at which the thermometer at 8 a.m. touched 70°. Morning readings exceeding 60° over Italy and Algeria only, but exceeding 50° over the greater part of France and England. Lowest, (1) 16° at Haparanda, 24° at Uleaborg, 28° at Kuopio, 3.° at Archangel; (2) 33° at Wick, 39° at Stornoway and Nairn, 40° at Aberdeen, 41° at Parsonstown; (3) 33° at Kharkov. Rising to 70° and more over Algeria and Sicily only during day, and to 60° and more over Austria and Italy.

Wind strong Westerly in the north of Norway; calm in Scotland; North-Easterly over Ireland, England, and the Channel—moderate to light at the Irish stations, strong and squally on our eastern and southern coasts; North-Westerly at Corunna; Southerly and South-Easterly in the south-west of France. Light anticyclonic breezes prevalent over south-eastern Europe. Increasing to a gale from East-North-East on our south-eastern coasts later, as well as in some parts of north Germany, and blowing very freshly from the Southward in the south of France.

Barometer highest, 30·2 ins. to 30·1 ins. in an anticyclone lying over the northern parts of our Islands and south of Scandinavia; (2) 30·1 ins. and more to 30·0 ins. in another system over southern Russia and the Black Sea. Lowest, (1) 29·5 ins. and less in a depression over the Bay of Biscay and west of France; (2) 29·8 ins. and less over the White Sea. Shallow disturbances over Germany—secondary to the system over western France. Rising over Norway later, and still more decidedly in the south of France; falling again over Algeria.

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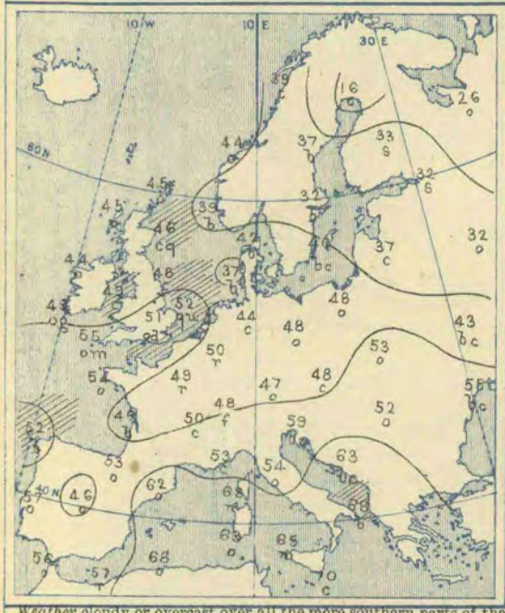
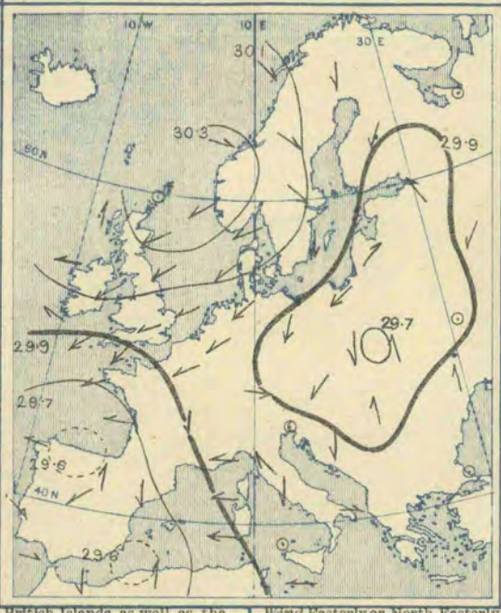
Tuesday, 27th October.

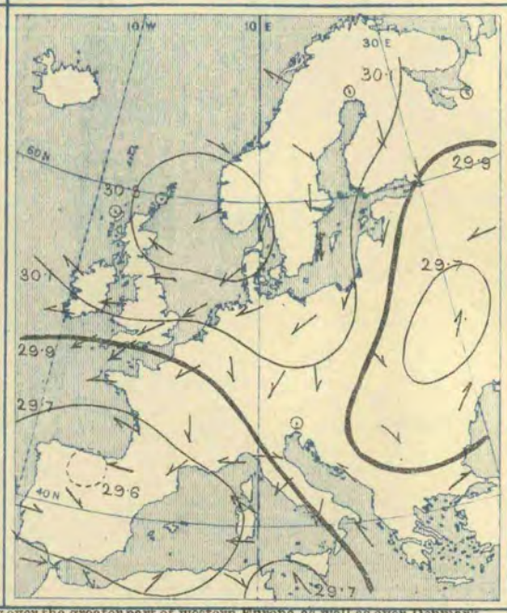
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather cloudy or overcast over all the more southern parts of the British Islands, as well as the greater part of Russia, central and southern Europe; rain falling in the south and east of England, and various parts of Germany and France, and snow at Kuopio and St. Petersburg. Some improvement taking place in the south of our Islands later, but sky remaining overcast, and extremely heavy rain falling on the shores of the Gulf of Lion. Aurora seen at Skudesnaes and Wick at night.

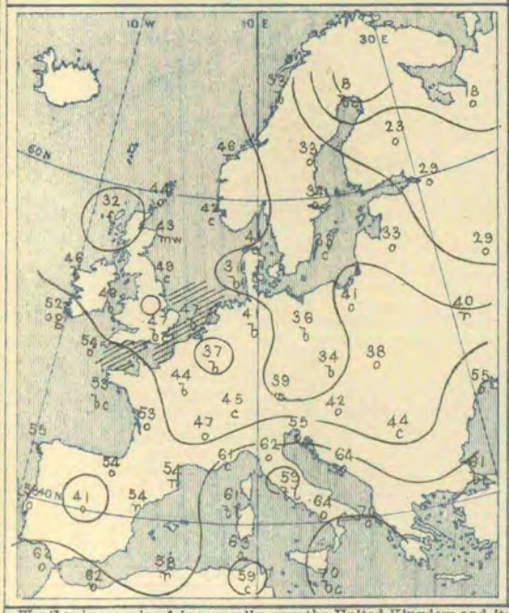
Temperature highest, 70° at Malta, 69° at Cagliari, 68° at Sanguinaire, Brindisi, and Algiers, and 65° at Palermo; above 60° at most of the Mediterranean and Adriatic stations, and as high as 55° in the English Channel. Lowest, 16° at Haparanda, 25° at Uleaborg, 26° at Archangel, and 32° at Stockholm, St. Petersburg, and Moscow; below 40° over Sweden and the whole of northern and central Russia. Daily maxima below 55° in most parts of the United Kingdom, exceeding 60° over Austria and the greater part of France, and touching 70° in the south of Italy; sharp frost occurring in the north of Scotland at night.

Wind Easterly or North-Easterly over the greater part of western Europe, as well as over Denmark, north Germany, and the Baltic; strong to a gale in force over the Channel and south-east of England, and also at some of the Baltic stations. Light or moderate from the North-Westward over Scandinavia and the Gulf of Finland, but southerly over the southern parts of Russia; variable over Italy, Austria, and Algeria. Easterly winds subsiding a little in the south-east of England during day, but still blowing strongly in the Channel; strong Northerly winds setting in over the north of Italy and an East-North-Easterly gale at Trieste, while South-Westerly breezes appeared over Sicily and southern Italy.

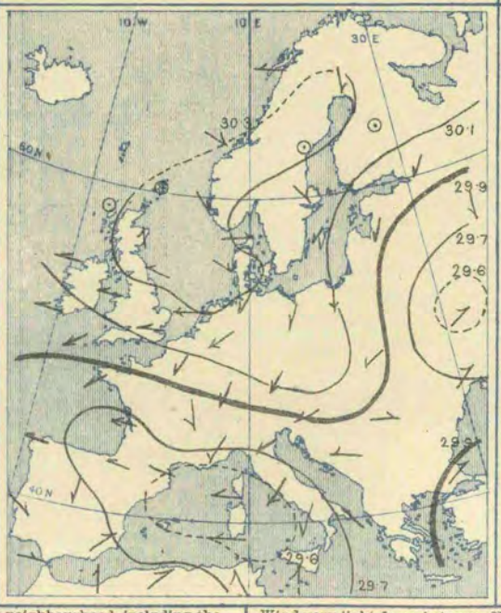
Barometer highest, 30·3 ins. and upwards in an anticyclone lying over Scotland and the southern half of Norway, and the northern part of the North Sea. Lowest, 29·6 ins. and less in two depressions—one lying over the north of Spain, the other off the Algerian coast; 29·7 ins. and less in a third system over Galicia. Anticyclone in north subsequently spreading slowly southwards, barometer rising in nearly all parts of western Europe; depressions over Spain and Algeria disappearing, but a new (large and complex) one forming over the northern parts of the Mediterranean, Italy, and the Adriatic.

Wednesday, 28th October.

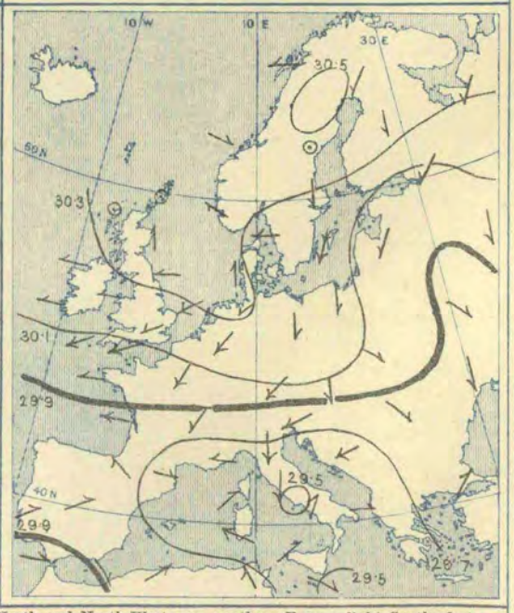
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fair generally over the United Kingdom and its neighbourhood, including the northern half of France and the western half of Spain; very unsettled over the south of Russia and the Mediterranean, and especially so over the north-east of Spain and the south of France, where rain was still falling. Weather in latter regions apparently improving later, but 0·4 in. of rain falling at Perpignan, and considerable amounts over Algeria, Italy, and the south-west of Austria—largest amounts 1·5 ins. at Trieste.

Temperature falling in most places, the only stations having a morning reading of 70° being Malta and Brindisi. Morning values of below 60° over nearly the whole of Europe, those over Germany and Scotland below 40°. Lowest of all still further northwards, viz., 8° Fahr. at Haparanda, 17° at Uleaborg, 18° at Archangel, 23° at Kuopio, 23° at Helsingfors, St. Petersburg, and Moscow. Rising to a little above 55° at a few of the British stations later and to between 55° and 59° in the west of France, but exceeding 60° over southern Europe only. Exceeding 70° in the south of Italy and some parts of Algeria. Succeeding night very cold over the northern and eastern parts of Great Britain.

Wind very light from between North and North-West over northern Europe, light Southerly to South-Easterly in the north of our Islands, mainly Easterly over Ireland and England, strong East-North-Easterly in the Channel and north of France, Northerly over Germany. Cyclonic circulation of strongish winds prevailing over the Mediterranean and of light winds over southern Russia. Both of these latter circulations moving South-Eastwards later, but East-North-Easterly wind remaining strong in the English Channel.

Barometer highest, 30·3 ins. and more to 30·1 ins. in a large anticyclone covering the whole of north-western Europe and greater part of Germany; 29·9 ins. and more over Asia Minor; and 29·8 ins. and more over the south of Spain. Lowest, 29·6 ins. and less in a depression over the south of Russia, and in another over the Mediterranean; latter system large and complex and moving eastwards later. Gradients somewhat steep over France, Switzerland, and south Germany.

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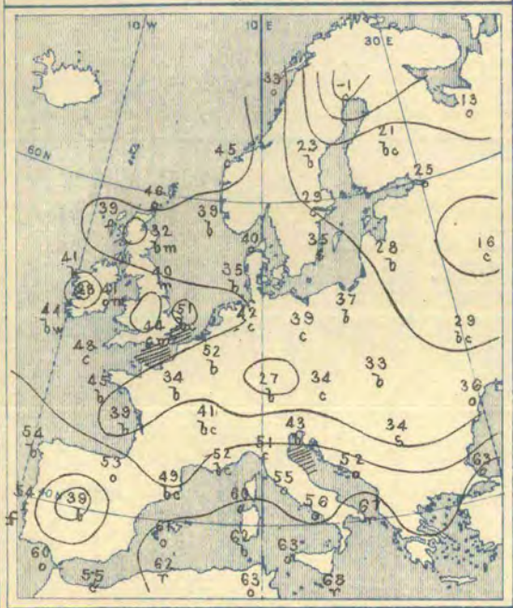
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 29th October.

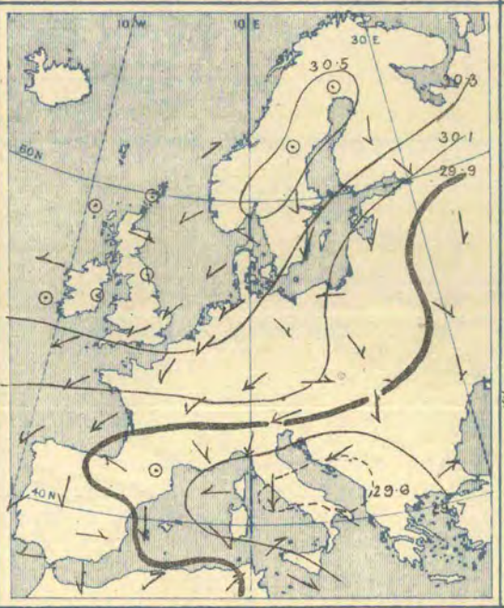
Temperature and Weather.

8 a.m.

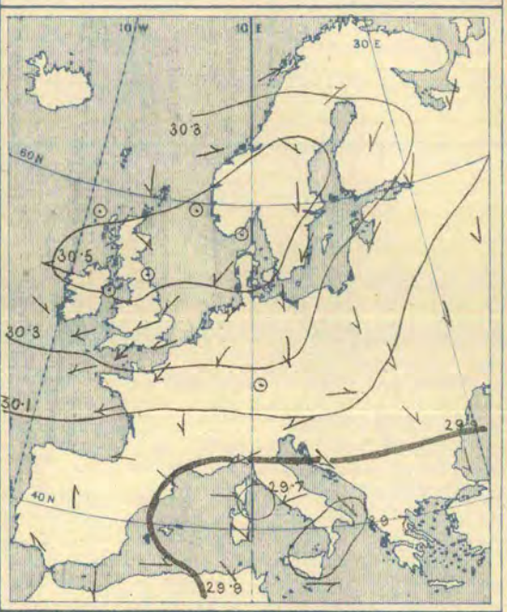


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over northern and north-western Europe generally, but hazy in a few places; changeable in the south-east, dull and unsettled in the south, with rain in places, more particularly in the south of Italy. Rain over Norway later (heavy at Skudesnaes), and considerable falls at some German stations, at Hermanstadt, and Constantinople; much dew over England at night, with local fogs.

Temperature still decreasing in most places and becoming very low for the time of ye... None of the morning readings touching 70°; many of them below 60° even at the Mediterranean stations, and most of them below 40° over Europe. Lowest of all, (1) −1° Faht. at Haparanda, +13° at Archangel and Uleaborg, 16° at Moscow, 21° at Kuopio, 23° at Hernösand, 25° at St. Petersburg; (2) 27° at Munich, 29° at Kiev, 32° at Buda-Pesth, 34° at Vienna, Hermanstadt, and Kharkov; (3) 28° at Nairn and Parsonstown, 32° at Brussels, 34° at Paris, and 34° to 38° over central England. Scarcely touching 55° over any part of England later, but reaching 54° at Brest, exceeding 60° in the south of France, 70° in south of Italy, and reaching still higher values over Algeria.

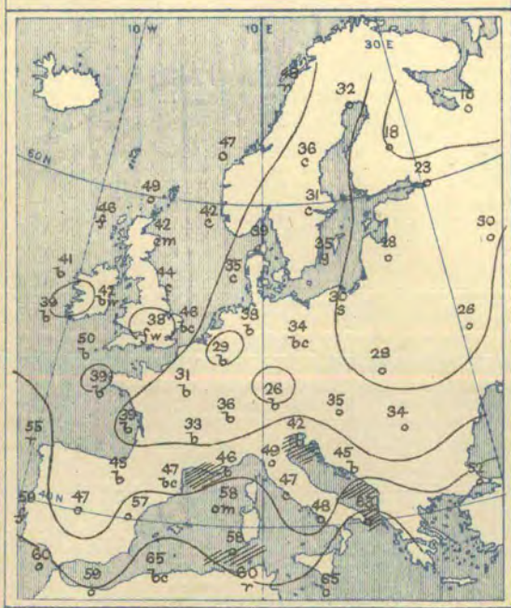
Wind light and anticyclonic over Scandinavia and the north and west of the British Isles; North-Easterly and moderate over the Baltic and north Germany; North-Easterly, fresh to strong, in the Channel and Bay of Biscay; variable over central Europe; North-Easterly, strong to a gale, over the northern half of Italy and the Adriatic; South-Westerly to Westerly over Tunis, Sicily, and the Bosphorus. Falling light in the Channel later and anticyclonic airs spreading southwards over England, but becoming strong from the South-Westward over the northern half of Norway.

Barometer highest, 30·5 ins. and more to 30·3 ins. in a very large anticyclone covering northern Europe, the North Sea, and the British Isles. Lowest, 29·6 ins. and less in a very complex depression covering the Adriatic, the southern half of Italy, and the eastern parts of the Mediterranean. Gradients moderate to rather steep over southern Europe and the Baltic. Rising slowly over our Islands all day, falling in Lapland and the north of Norway. Depression over Adriatic increasing in size, becoming more complex, and moving South-Eastwards.

Friday, 30th October.

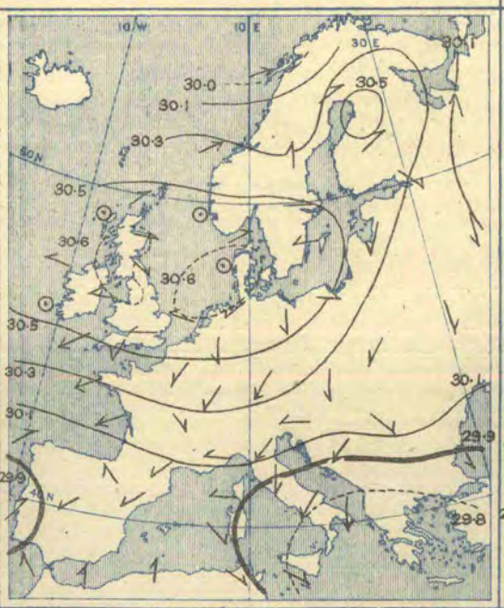
Temperature and Weather.

8 a.m.

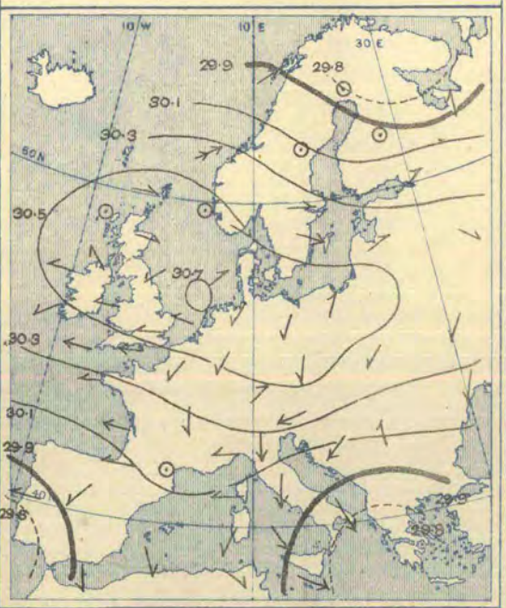


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine over western Europe, the North Sea, England, and Ireland, but foggy in several places; dull over northern, eastern, and central Europe, with rain in the north of Norway, snow at several Baltic stations. Considerable rain over northern half of Norway later, some in Spain and the south of France, and a heavy fall over Algeria and at Brindisi; very fine over the United Kingdom.

Temperature still falling in most places; risen in Scotland and over Scandinavia—as much as 13° at Bodö. Morning readings below 50°, except over the southern parts of the Mediterranean, below 40° in some parts of our Islands, and as low as 12° to 21° over Finland and the north of Russia, 21° to 26° over southern Russia, 26° to 35° over central Europe, 31° at Paris and Parsonstown, 38° in London, 39° at Oxford and Liverpool. Rising to slightly above 50° over Great Britain and the south of Ireland later and in the west and south of France, to 60° and more over Spain and the south of Italy, and still higher over Algeria, but scarcely exceeding 40° in Germany.

Wind light and anticyclonic over the British Islands, the North Sea, and north Germany; strong from West-South-West over the northern half of Norway, light North-Easterly over the Baltic, moderate Northerly to North-Easterly over Germany and France; strong from the same direction over the Adriatic and Italy, mainly Westerly on the Algerian coast and at Malta. Freshening considerably from the Eastward over the Channel and Bay of Biscay later; blowing a strong gale from West-South-West at Christiansund.

Barometer highest, 30·6 ins. and more to 30·4 ins. in a large anticyclone covering the British Islands, Channel, North Sea, Denmark, Baltic, and Finland. Lowest, 29·8 ins. and less in a large depression over south-eastern Europe, and 30·0 ins. and less in another off the coast of Finmark; below 30·2 ins. over central and north-eastern Russia also. Falling a little over the Bay of Biscay and south-west of our Islands later, briskly over the north of Scandinavia, rapidly over Finland and the north of Russia; rising over central and southern Russia.

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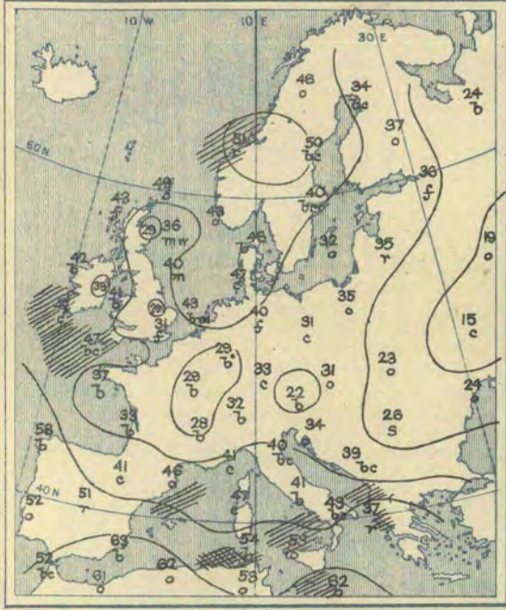
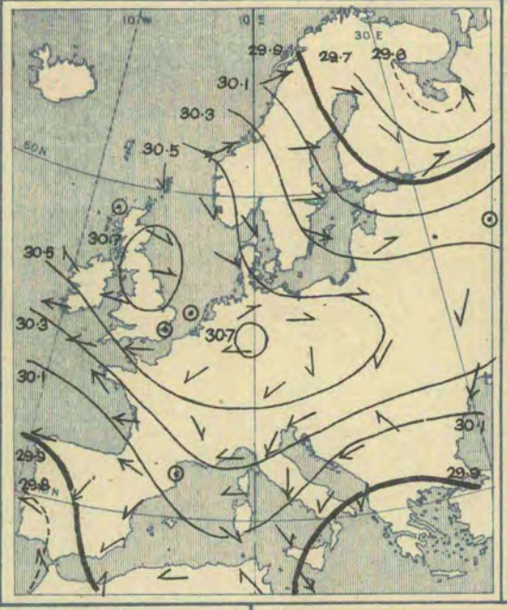
Saturday, 31st October.

Temperature and Weather. 8 a.m.

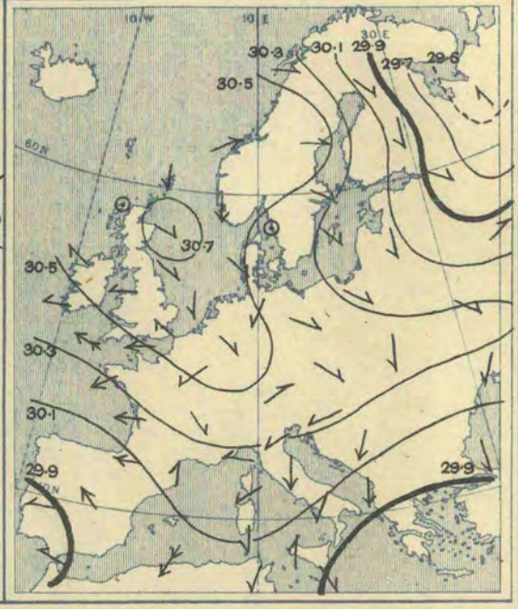


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine over the British Islands and western Europe generally, but rainy at Madrid; fair over central Europe, unsettled elsewhere. Snow reported at Breslau and Hermanstadt, rain at Brindisi. Some rain later in the southern and eastern parts of the British Isles, as well as at Cuxhaven and Munich; large quantities at Lisbon, Brindisi, and Nemours (Algeria).

Temperature again fallen over the British Islands and France, risen over Sweden. Below 60° at all stations excepting Malta; below 40° over the northern and eastern parts of Great Britain and at most of the Continental stations, and as low as 15° at Kiev, 19° at Moscow, Kharkov, and Warsaw, 22° at Nicolaieff and Munich, 23° at Lemberg, 26° at Hermanstadt, Buda-Pesth, Breslau, and Loughborough, 29° at Paris and Nairn, 30° at Oxford, 31° in London. Rising later to 50° or more in the north-east of Scotland and in Norway, as well as in the south of Ireland; not touching 50° over the greater part of England and France, but exceeding 60° over Spain and Italy, and exceeding 80° in some parts of Algeria.

Wind very light and anticyclonic over the northern and eastern parts of Great Britain, the Netherlands, and north Germany; strong to a gale from the Westward over Scandinavia, light Westerly and North-Westerly on the shores of the Baltic, strong Easterly to Northerly over the Adriatic and Italy, and North-Westerly at Malta; South-Easterly and Easterly, strong to a gale, on our own west and south-west coasts, and strong Easterly over the Bay of Biscay.

Barometer highest, 30·7 ins. and more to 30·5 ins. in an anticyclone lying over the British Islands, north-western and central Europe. Lowest, 29·6 ins. and less over the White Sea; 29·8 ins. and less off the south-west of Portugal; 29·9 ins. and less over Greece, the south of Italy, and east of Sicily. Rising over Norway during day, falling over Russia as the depression in the far north spread southwards over that country.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia: that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The depressions noticed over the United Kingdom during last week disappeared rapidly at the commencement of that now under notice, and a large anticyclone was developed over north-western Europe generally, the barometer rising so decidedly that readings exceeding 30·7 ins. were recorded over the northern parts of Great Britain and the North Sea both on the 30th and 31st. Cold dry weather became prevalent in the region covered by the anticyclone, fogs occurred locally, and frost was recorded on the grass on several occasions. The south-western, southern, and south-eastern parts of Europe, and the Mediterranean were now the regions of unsettled weather, and in those places the falls of rain were very heavy. Over northern Europe, also, some depressions which advanced towards Russia from the north-westward caused heavy rain at times and in several places snow fell.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 254.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	15·6	?	24	?	NEWQUAY	34·5	?	50	?
OSWALDKIRK (Yorkshire)	18·5	?	28	?	TORQUAY	22·5 *	?	33 *	?
WORKSOP	19·9	+ 3·8	30	+ 5	ARLEY COTTAGE (County Cavan)	43·0	?	65	?
THURCASTON (Leicestershire)	28·1	+11·9	42	+17	GUERNSEY	34·0 *	?	39 *	?
EASTBOURNE	29·9	?	44	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

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VOL. VIII. No. 44.] *Third Series.* WEEK ENDING SATURDAY, 7TH NOVEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881–90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 260.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	54	30	48·2	39·2	43·7	1 above.	24	− 1	8	− 4	2006	+213	665	+ 86
1. SCOTLAND, EAST	55	27	47·6	38·3	43·0	1 above.	23	− 5	10	− 5	2228	− 44	738	+129
2. ENGLAND, N.E.	52	32	48·7	42·7	45·7	2 above.	26	− 6	0	− 9	2351	− 82	603	+ 85
3. ENGLAND, EAST	57	32	50·2	41·1	45·7	1 above.	30	− 4	3	− 9	2748	− 69	697	+106
4. MIDLAND COUNTIES	55	26	48·2	39·4	43·8	0 (average)	24	− 9	7	− 7	2648†	−105†	692	+100
5. ENGLAND, SOUTH	57	31	50·1	40·1	45·1	1 below.	30	−12	5	− 3	2959	− 94	571	+135
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	55	31	49·4	39·8	44·6	1 above.	27	− 3	6	− 4	2441	+ 97	494	+ 56
7. ENGLAND, N.W.	56	32	49·3	40·8	45·0	0 (average)	26	− 7	3	− 4	2587	+ 40	460	+ 34
8. ENGLAND, S.W.	55	34	49·3	41·6	45·5	2 below.	26	−17	1	− 3	2722	−124	435	+110
9. IRELAND, NORTH	56	30	48·8	41·2	45·0	0 (average)	24	− 9	2	− 7	2538‡	+ 42‡	421	+ 43
10. IRELAND, SOUTH	55	32	50·6	41·5	46·1	1 below.	31	−11	1	− 6	2801	− 21	328	+ 39
— CHANNEL ISLANDS	55	37	51·2	42·6	46·9	3 below.	34	−26	0	0	3204	− 26	162	+ 40

Rainfall.

DISTRICTS. (See p. 260.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	3	1	11 less.	200	− 3	42·0	+ 2·2
1. SCOTLAND, EAST	2	1	7 less.	150	−17	24·1	− 2·7
2. ENGLAND, N.E.	2	1	6 less.	146	− 9	19·5	− 2·7
3. ENGLAND, EAST	4	1	5 less.	158	+ 7	22·0	+ 0·1
4. MIDLAND COUNTIES	2	less than ½	6 less.	156	+ 6	24·5	0·0
5. ENGLAND, SOUTH	1	less than ½	7 less.	150	+ 5	26·7*	+ 3·4
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	1	1	11 less.	163	−12	36·1	− 4·8
7. ENGLAND, N.W.	1	less than ½	9 less.	148	−14	28·3	− 0·9
8. ENGLAND, S.W.	1	less than ½	10 less.	158	− 9	34·8	+ 1·3
9. IRELAND, NORTH	1	1	8 less.	179	−11	27·7	− 2·9
10. IRELAND, SOUTH	1	less than ½	8 less.	163	−10	30·7	− 1·8
— CHANNEL ISLANDS	1	less than ½	9 less.	157	−20	28·9	+ 1·7

Bright Sunshine.

DISTRICTS. (See p. 260.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	8	− 4	13	− 8	1106	+ 8	28	+ 1
1. SCOTLAND, EAST	6	− 5	10	−14	1231	− 36	31	− 1
2. ENGLAND, N.E.	0	−14	0	−22	1148	− 17	29	0
3. ENGLAND, EAST	11	− 4	18	− 9	1342	− 77	34	− 2
4. MIDLAND COUNTIES	5	−10	8	−17	1260	− 10	32	0
5. ENGLAND, SOUTH	15	− 1	23	− 2	1451	+ 71	37	+ 2
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	4	− 9	6	−15	1301	+ 46	33	+ 1
7. ENGLAND, N.W.	3	−10	5	−15	1189	− 53	30	− 1
8. ENGLAND, S.W.	12	− 3	18	− 7	1504	+ 14	38	0
9. IRELAND, NORTH	7	− 8	12	−12	1255	+106	32	+ 3
10. IRELAND, SOUTH	10	− 7	16	−11	1373	+ 35	35	+ 1
— CHANNEL ISLANDS	43	+22	64	+33	1871	+122	48	+ 4

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather of the week was quiet and dry generally, although a good deal of haze or fog prevailed over Great Britain, and the sky was often very cloudy or overcast.

Temperature was 3° below the mean in the Channel Islands, and 2° below in England N.E. and S.W.; in the other parts of the Kingdom it did not differ materially from the normal. The highest of the maxima were recorded either on the 1st or 2nd, and varied from 57° in England E. and S. to 52° in England N.E. During the latter part of the week the daily maxima were generally below 50°. The lowest of the minima were registered during the early morning of the 1st, and varied from 26° in the Midland Counties and 27° in Scotland E., to 34° in England S.W. and 37° in the Channel Islands.

Rainfall has been much less than the mean in all districts. In several of the more southern and western localities the fall has been scarcely appreciable.

Bright Sunshine has been very deficient in nearly all districts; in the Channel Islands, however, there has been a considerable excess, the percentage of the possible duration having been as high as 66. Elsewhere the percentage ranged from 23 in England S. and 18 in England E. and S.W., to 5 in England N.W., while in England N.E., the amount being less than half-an-hour, was not appreciable as a percentage of the possible duration.

Barometer and Wind.—During the whole of this period the distribution of pressure and the direction of wind have continued anticyclonic. At first the anticyclone lay to the northward of our Islands and the wind was light from the Eastward very generally, but as the week progressed the system moved gradually southwards, and by the end of the week South-Westerly breezes had set in on all our more northern coasts, and were spreading steadily south-eastwards towards England.

* This value has been altered owing to the receipt of further information.
† The corresponding figures in last week's report should read "2624" and "−91."
‡ The corresponding figures in last week's report should read "2514" and "+54."

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II.– DATA from which the SUMMARY on page 259 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	50	36	48·3	42·1	45·2	+ 2·8	22	0	4	0·21	−0·67	*	*	*	*
	Stornoway	53	35	50·1	38·6	44·4	+ 1·5	31	10	3	0·13	−0·96	9·1	− 4·0	15	− 8
	Wick	53	36	49·4	38·7	44·1	+ 1·3	29	9	1	0·05	−0·65	*	*	*	*
	Lairg ℌ	54	33	47·7	37·8	42·8	+ 1·2	23	12	6	0·12	−0·78	*	*	*	*
	Glencarron ℌ	50	35	46·5	38·5	42·5	+ 0·9	18	10	2	0·12	−2·16	*	*	*	*
	Fort Augustus ℌ	49	30	47·0	38·1	42·6	+ 0·1	21	11	0	0·03‡	−0·92	2·4	?	4	?
	Fort William ℌ	51	37	48·1	40·8	44·5	+ 1·0	23	3	2	0·12	−1·69	12·9	?	21	?
1. SCOTLAND, E.	Nairn	51	27	47·4	34·7	41·1	− 1·4	15	30	3	0·03	−0·47	*	*	*	*
	Aberdeen	51	36	48·4	47·4	44·4	+ 1·3	24	4	2	0·07	−0·65	8·0	− 8·6	13	−14
	Braemar ℌ	48	33	44·2	36·1	40·2	+ 0·4	6	23	1	0·02	−0·88	10·3†	? †	17†	?†
	Ochtertyre ℌ	55	36	48·4	38·3	43·4	+ 1·6	25	10	2	0·06	−0·95	*	*	*	*
	Leith	54	33	49·6	40·3	45·0	+ 0·8	28	5	2	0·05	−0·45	*	*	*	*
	Marchmont ℌ	50	34	47·4	40·0	43·7	+ 1·8	20	6	4	0·13	−0·69	1·8	?	3	?
2. ENGLAND, N.E.	Alnwick Castle	51	36	48·0	42·7	45·4	+ 1·8	24	0	1	0·02	−0·76	*	*	*	*
	Durham	51	39	48·1	42·2	45·2	+ 2·2	22	0	3	0·13	−0·52	0·1	−14·9	0	−25
	Shields	52	37	49·1	42·1	45·6	+ 1·5	25	0	1	0·01	−0·57	*	*	*	*
	Scarborough ℌ	51	41	48·5	44·6	46·6	+ 1·6	32	0	3	0·05	−0·65	*	*	*	*
	York	52	32	49·1	39·4	44·3	+ 0·4	27	7	2	0·02	−0·55	0·6	−12·4	1	−19
	Spurn Head	52	43	49·6	45·0	47·3	+ 2·5	37	0	3	0·04	−0·51	*	*	*	*
3. ENGLAND, E.	Hillington ℌ	53	34	50·6	39·8	45·2	+ 1·2	32	6	4	0·06	−0·54	12·4	− 5·8	19	− 6
	Yarmouth	53	40	49·9	43·6	46·3	+ 1·6	34	0	5	0·12	−0·60	*	*	*	*
	Geldeston	54	37	51·3	42·0	46·7	+ 1·6	33	0	5	0·15	−0·46	14·1	− 6·3	22	− 6
	Cambridge	57	32	50·9	39·3	45·1	+ 1·0	33	8	3	0·06	−0·43	11·6	− 6·4	18	−11
	Rothamsted	54	37	48·4	41·0	44·7	+ 0·9	23	3	3	0·04	−0·60	7·0	?	11	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	50	27	48·3	36·9	42·6	− 1·1	26	14	3	0·04	−0·55	*	*	*	*
	Loughborough	54	26	49·3	39·4	44·4	+ 0·3	28	7	2	0·02	−0·53	*	*	*	*
	Stamford (Ketton Hall)	55	32	49·9	40·1	45·0	+ 1·0	29	5	3	0·04	?	*	*	*	*
	Cheadle ℌ	51	38	47·2	40·6	43·9	+ 1·1	19	4	0		−0·78	*	*	*	*
	Churchstoke ℌ	50	38	47·2	39·0	43·1	− 0·3	20	8	1	0·01	−0·79	3·6	−11·4	6	−17
	Hereford ℌ	53	37	46·0	40·7	44·4	0·0	22	4	1	0·01	−0·60	*	*	*	*
	Cirencester	52	33	47·3	39·4	43·4	− 0·1	21	7	2	0·02	−0·68	7·0	−12·3	11	−15
	Oxford	52	30	48·3	39·0	43·7	− 1·1	25	8	1	0·01	−0·56	8·5	− 8·5	13	−13
5. ENGLAND, S.	London	57	31	51·3	40·0	45·7	+ 0·2	34	6	1	0·01	−0·49	5·1†	− 6·9†	8†	−10†
	Strathfield Turgiss ℌ	55	32	49·5	38·9	44·2	− 0·3	28	9	0	—	−0·59	*	*	*	*
	Dungeness	57	35	50·3	41·0	45·7	− 1·3	30	3	3	0·11	−0·70	*	*	*	*
	Hastings (St. Leonards)	57	38	50·3	40·2	45·3	− 1·7	31	5	4	0·09	−0·71	21·2	+ 1·4	33	+ 2
	Southampton	55	37	50·5	39·9	45·2	− 1·1	31	6	0	—	−0·71	17·5	− 0·5	27	0
	Hurst Castle	57	37	50·7	41·4	46·1	− 1·3	31	2	0	—	−0·75	*	*	*	*
	Stowell ℌ	53	35	47·8	39·6	43·7	− 1·1	22	7	1	0·01	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	55	35	49·5	37·5	43·5	− 0·3	29	13	2	0·18	−1·82	*	*	*	*
	Glasgow	49	35	47·7	41·1	44·4	+ 1·3	21	3	2	0·10	−0·77	0·8	− 8·1	1	−13
	Ardrossan	53	35	50·3	41·0	45·7	+ 0·6	30	3	1	0·14	−0·76	*	*	*	*
	Glenlee ℌ	53	31	48·9	36·4	42·7	+ 0·4	28	16	1	0·09	−1·28	*	*	*	*
	Douglas (Isle of Man)	52	38	50·4	42·8	46·6	+ 1·2	32	0	0	—	−1·05	6·7	−10·3	11	−16
7. ENGLAND, N.W.	Newton Reigny	56	32	47·8	36·0	41·9	− 0·4	16	25	1	0·02	−0·80	5·8	− 6·9	9	−10
	Stonyhurst	53	41	48·4	42·2	45·3	+ 1·3	23	0	0	—	−1·10	1·4	−11·4	2	−19
	Blackpool ℌ	55	34	51·5	37·2	44·4	− 0·6	37	13	1	0·10	−0·75	1·0	−12·0	2	−19
	Manchester	52	40	48·0	42·2	45·1	+ 1·1	22	0	0	—	−0·89	*	*	*	*
	Liverpool Obsy. (Bidston)	54	37	49·1	42·0	45·6	+ 0·2	25	0	2	0·03	−0·71	*	*	*	*
	Llandudno ℌ	52	38	49·3	42·4	45·9	− 1·1	27	0	2	0·03	−0·81	5·1	− 7·5	8	−12
	Holyhead	54	41	50·9	43·3	47·1	− 0·7	36	0	2	0·08	−0·88	*	*	*	*
8. ENGLAND, S.W.	Llandovery	55	36	49·6	39·9	44·8	− 0·2	28	6	0	—	−1·24	*	*	*	*
	Pembroke	53	39	49·3	42·3	45·8	− 2·7	27	0	1	0·01	−0·90	15·2	− 1·5	23	− 4
	Arlington (N. Devon)	53	37	48·3	40·1	44·2	− 1·5	23	5	0	—	−1·48	*	*	*	*
	Cullompton ℌ	55	34	49·6	38·5	44·1	− 1·7	29	10	0	—	−0·78	15·6	+ 0·6	24	+ 2
	Falmouth	53	41	49·5	43·9	46·7	− 2·1	33	0	1	0·02	−1·26	7·2	−13·8	11	−20
	Plymouth	54	41	49·9	43·4	46·7	− 1·1	33	0	1	0·02	−0·89	13·3	− 3·6	20	− 6
	Prawle Point	53	39	49·1	43·1	46·1	− 1·9	29	0	1	0·07	−0·71	*	*	*	*
9. IRELAND, N.	Malin Head	51	41	48·7	43·6	46·2	+ 1·8	29	0	1	0·08	?	*	*	*	*
	Londonderry	51	35	48·3	41·0	44·7	+ 0·1	23	3	1	0·02	−0·97	*	*	*	*
	Mullaghmore	51	41	49·3	43·4	46·4	− 0·4	31	0	2	0·05	−0·97	*	*	*	*
	Belmullet	51	37	49·6	40·9	45·3	− 2·5	28	3	2	0·13	?	*	*	*	*
	Markree Castle	51	31	48·2	37·4	42·8	− 1·4	25	13	2	0·08	−0·80	8·0	− 7·5	13	−11
	Brookeborough	52	35	47·4	40·2	43·8	+ 0·6	20	5	1	0·45	−0·50	*	*	*	*
	Armagh	52	35	49·2	40·7	45·0	+ 1·5	26	4	2	0·04	−0·61	6·2	− 8·2	10	−13
	Donaghadee	56	40	51·3	45·0	48·2	+ 3·1	43	0	0	—	−0·75	*	*	*	*
	Edgeworthstown	50	30	46·9	38·3	42·6	− 0·6	20	10	2	0·17	−0·61	*	*	*	*
10. IRELAND, S.	Dublin	54	41	51·1	44·2	47·7	+ 1·5	40	0	0	—	−0·61	8·2	−10·6	13	−16
	Parsonstown	52	32	49·1	36·9	43·0	− 1·7	28	14	1	0·02	−0·65	7·7	− 9·1	12	−14
	Kilkenny	53	35	49·6	39·0	44·3	− 1·2	29	8	0	—	−0·65	*	*	*	*
	Waterford	54	38	50·8	41·1	46·0	− 1·7	32	3	1	0·05	−0·80	*	*	*	*
	Roche's Point	54	38	51·4	44·7	48·1	+ 0·1	43	0	1	0·02	−0·97	*	*	*	*
	Valencia	55	38	52·6	43·4	48·0	− 0·9	42	0	1	0·04	−1·31	15·3	− 2·7	24	− 2
	Killarney												*	*	*	*
	Foynes	54	37	49·8	41·3	45·6	+ 0·2	28	2	2	0·04	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	54	41	50·9	44·1	47·5	− 3·3	39	0	1	0·01	−0·87	*	*	*	*
	Jersey	55	37	51·4	41·1	46.3	− 3·5	34	3	1	0·02	−1·00	42·8	+21·8	64	+33

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

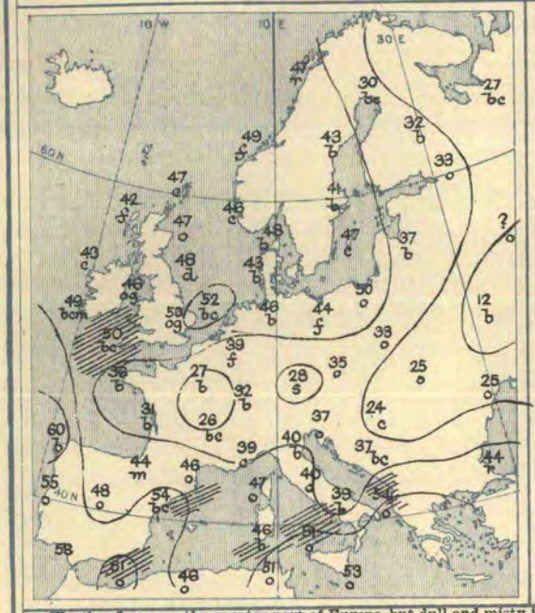
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

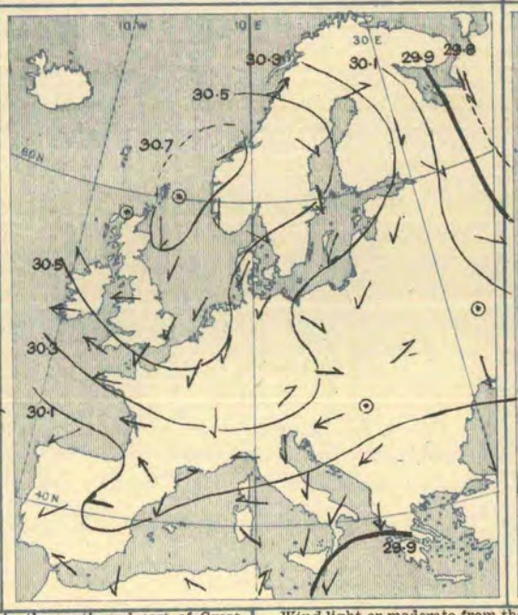
‡ Wet mist or fog.

Sunday, 1st November.

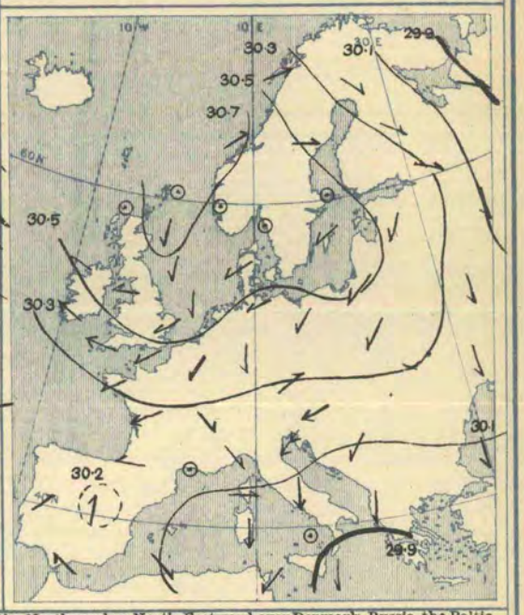
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fine over the greater part of Europe, but dull and misty in the north and east of Great Britain, with slight rain in a few places. Fog reported at several of the German stations, rain at Bodö, and snow at Munich and Vienna. Rain falling later in some parts of Algeria and snow in the south of Russia.

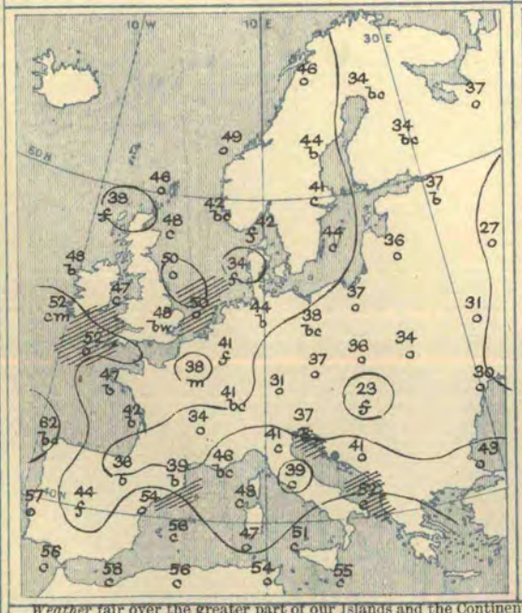
Temperature highest, 62° at Corunna, 61° at Oran, 60° at Nemours, and 58° at Bilbao and San Fernando; above 50° over the central and southern parts of the Mediterranean, and also in the south-east of England, where a great rise had occurred since the previous day; below 40° in the Riviera and some parts of Italy. Lowest, 1° at Kiev, 21° at Kharkov, 24° at Buda-Pesth and Nicolaieff, and 25° at Lemberg and Odessa; below the freezing point over Russia and Austria generally, as well as over south Germany and the inland parts of France. Daily maxima exceeding 55° in the south and south-east of England, but thermometer remaining below 50° in many parts of France and exceeding 60° in Spain and Algeria only.

Wind light or moderate from the Northward or North-Eastward over Denmark, Russia, the Baltic, the Netherlands, the east and south-east of Great Britain, central France, Spain, and Italy. Strong from the Eastward or South-Eastward in the south-west of our Islands and the west of France; light or moderate from the same quarter on our north-west coasts. South-Westerly in the west of Norway, with a gale at Bodö; light from the same quarter or from West in south Germany. No important change occurring during day.

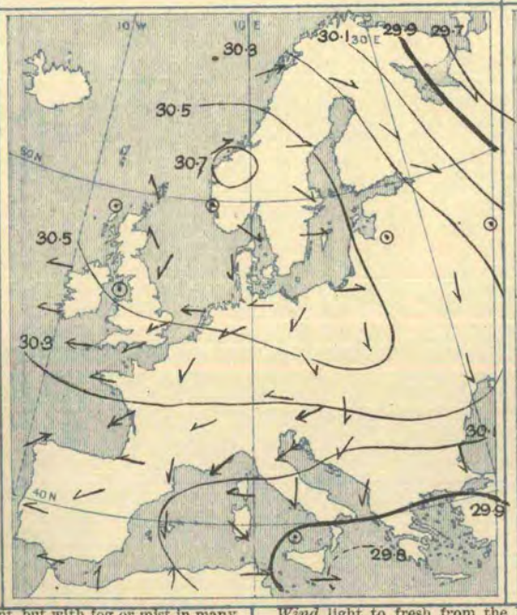
Barometer highest, 30·7 ins. and upwards over the north and east of Scotland, the extreme west of Norway, and the intervening parts of the North Sea; 30·5 ins. and upwards in a large anti-cyclone covering the whole of north-western Europe. Lowest, 29·8 ins. and less in a depression lying over northern Russia; 29·9 ins. and less in another system lying off the south of Italy. No important change occurring during day.

Monday, 2nd November.

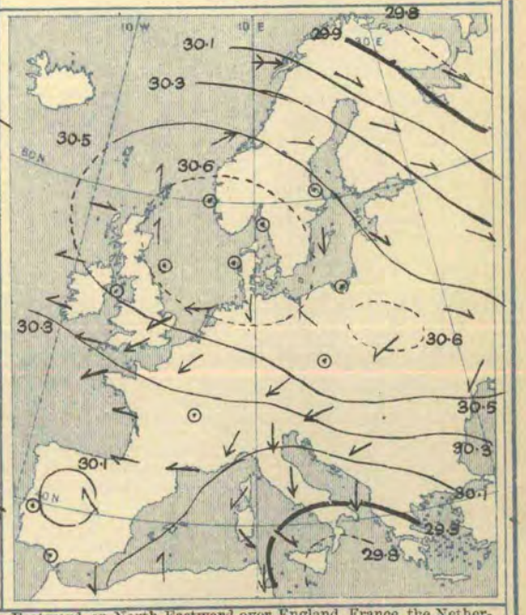
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fair over the greater part of our Islands and the Continent, but with fog or mist in many places. Dull over Austria and the south of Russia, with snow at Nicolaieff. A little rain falling later in the west of Norway, and also in some parts of north Germany, but weather improving in the south of Russia.

Temperature highest, 62° at Corunna, 58° at Oran, 57° at Oporto and Lisbon, and 56° at San Fernando, Nemours, and Algiers; above 50° over the central and southern parts of the Mediterranean generally, and also in the extreme south-west of our Islands, but below that point over the Riviera and northern Italy. Lowest, 23° at Buda-Pesth, 27° at Moscow, 30° at Kharkov, Nicolaieff, and Odessa, and 31° at Kiev; below 40° in most parts of central and eastern Europe, as well as over central Scotland. Daily maxima over western Europe mostly varying between 50° and 55°, but thermometer remaining below 50° over the northern and central countries. Exceeding 60° in the southern parts of Spain and Italy, and also in Algeria.

Wind light to fresh from the Eastward or North-Eastward over England, France, the Netherlands, and the greater part of central and southern Europe, but strong to a gale over the northern parts of the Adriatic. Light or moderate from the South-Eastward in Ireland and Scotland; South-Westerly over the northern parts of Scandinavia; light from the North-Westward or Northward over Russia, Denmark, and the south of Scandinavia. Variable or Southerly in Algeria, Westerly over Tunis and the adjacent parts of the Mediterranean. No important change occurring during day, but gale in Adriatic subsiding.

Barometer highest, 30·6 ins. to 30·7 ins. over the North Sea, Denmark, north Germany, the southern half of Scandinavia, and the north-eastern parts of Great Britain. Lowest, 29·7 ins. and less in a large depression lying over northern Russia: 29·8 ins. and less in another disturbance lying to the south of Italy. Slight fall of barometer taking place over western Europe during day, but no important change occurring in general distribution of pressure.

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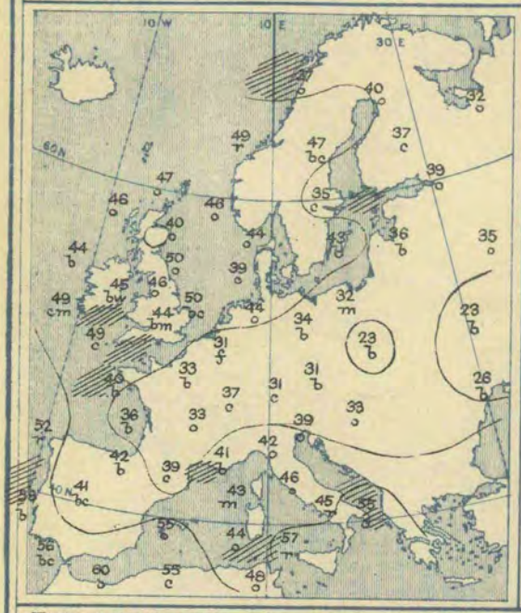
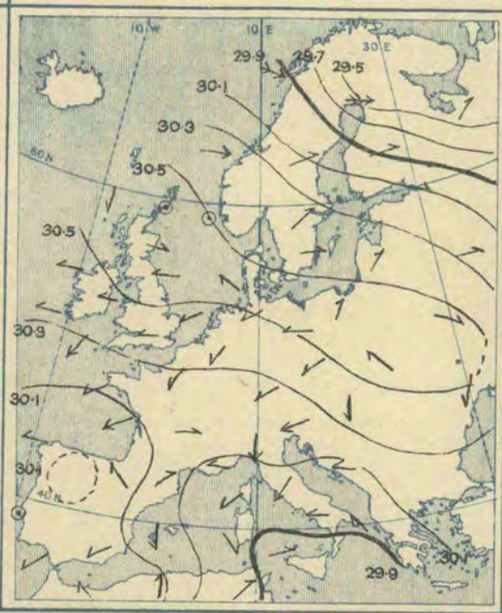
Tuesday, 3rd November.

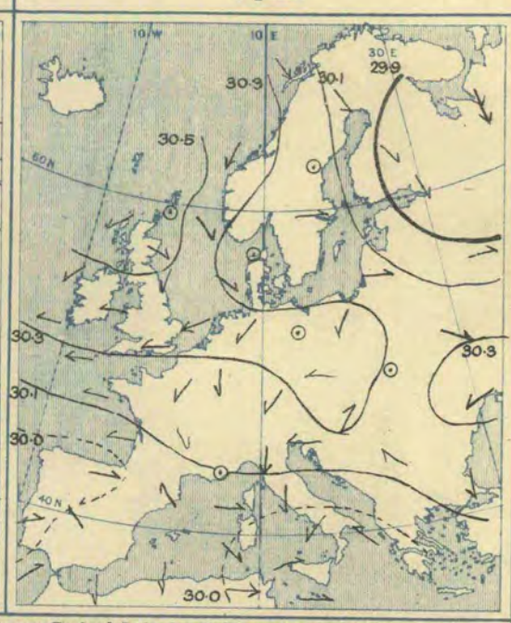
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather dull in the northern and central parts of Great Britain, as well as in Norway, Denmark, Russia, and Italy; rain falling at Christiansund, and also at Naples and Palermo. Fine in nearly all other parts of Europe, but with fog and mist in some places. Slight rain falling later at some of our own northern and eastern stations, and larger amounts in Italy and the south of France, but weather remaining fair and dry in most other parts of Europe. Snow reported at Haparanda in evening.

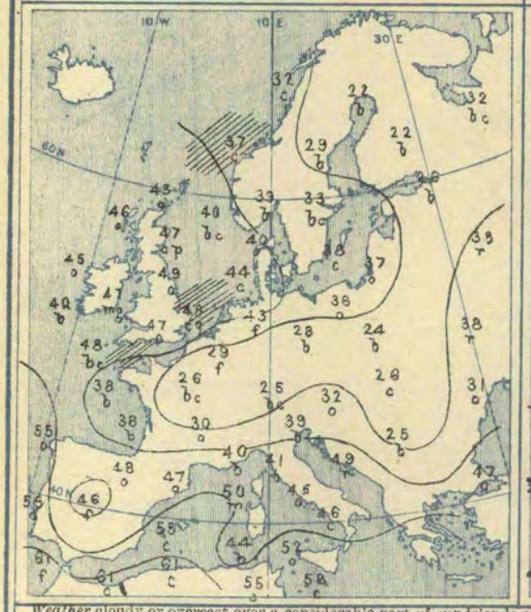
Temperature highest, 60° at Nemours, 58° at Lisbon, 57° at Palermo, and 56° at Oran; above 50° over the southern parts of the Mediterranean generally, but below 45° over Corsica, Sardinia, and the Riviera. Lowest, 20° at Nicolaieff, 23° at Moscow and Kiev, 25° at Lemberg, and 26° at Cracow, Kharkov, and Odessa; below 35° in most parts of Russia and central Europe. Daily maxima very little above 50° in any part of the United Kingdom, and below 45° at most of the German stations. Exceeding 60° in Algeria and the southern parts of Spain and Italy.

Wind Easterly or North-Easterly over England, Ireland, and the greater part of central, southern, and eastern Europe; light or moderate in force generally, but fresh or strong at the Channel stations, as well as in some parts of Italy. Calm or very variable in Scotland, Westerly over Scandinavia and northern and central Russia, with a gale at Bodö and Ulcaborg. Subsequently shifting to the Westward at Lisbon and Biarritz; veering to the North-Westward over Scandinavia and northern Russia and increasing to a gale at Archangel.

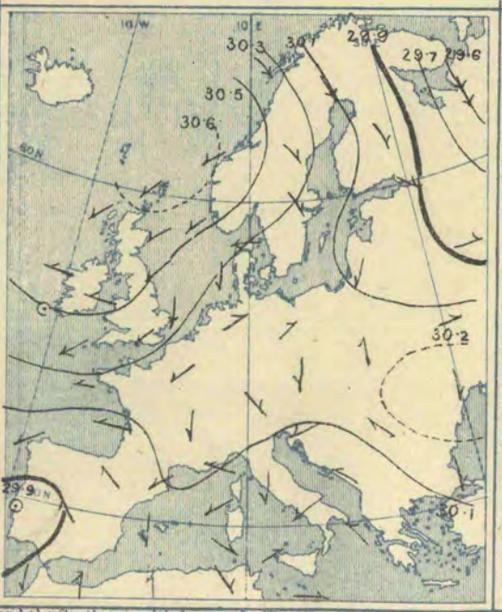
Barometer highest, 30·5 ins. and upwards in a long band stretching from the north of our Islands across the North Sea, Denmark, and north and east of Germany to the south of Russia. Lowest, 29·5 ins. and less in a large depression over Lapland and the White Sea; 29·9 ins. and less in a depression lying over the south of Italy and the adjacent parts of the Mediterranean. New disturbance, subsidiary to the northern depression, appearing later over central Sweden. Barometer falling slightly over western Europe.

Wednesday, 4th November.

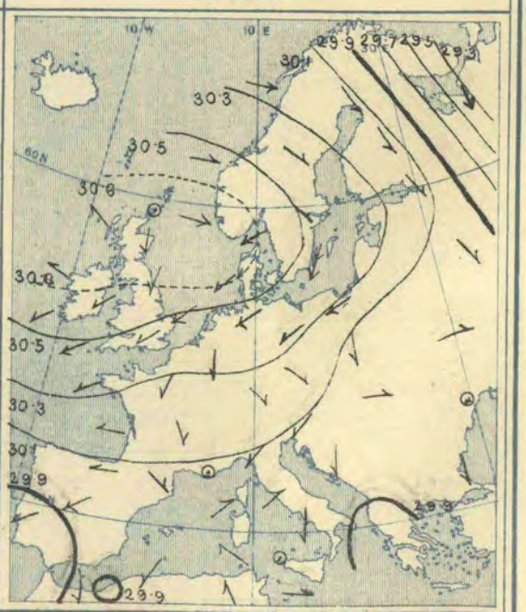
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather cloudy or overcast over a considerable part of our Islands and the Continent, with fog or mist in many places, and with slight drizzle in some parts of Great Britain and steady rain over central Russia. Fine over Scandinavia and northern Russia, as well as over France, Algeria, and northern Italy. Rain falling later at several of the Scandinavian and German stations, as well as in Germany and the north of France, and snow at Wisby, Prague, and Warsaw.

Temperature highest, 61° at San Fernando, Nemours, and Algiers, 58° at Malta, and 56° at Oran; above 50° over the central and southern parts of the Mediterranean generally, as well as on the coasts of the Spanish Peninsula; very little below 50° in the eastern and southern parts of the United Kingdom. Lowest, 22° at Archangel, Haparanda, and Kuopio, 24° at Ulcaborg, Warsaw, and Cracow, and 25° at Munich and Hermanstadt; below the freezing point over nearly the whole of Russia and central Europe, as well as over the inland parts of France. Daily maxima below 50° in most parts of western Europe, and below 40° at some of the German stations, but thermometer reaching 60° or more over the southern parts of Spain and Italy, the highest reading of all being 66° at Palermo.

Wind Easterly or North-Easterly over the greater part of western and southern Europe, light or moderate in force generally, but strong in the south-west of our Islands, and also in the south of Scandinavia; North-Westerly over Sweden and northern Russia, with a gale at Archangel; light from the Westward over north Germany and the central and southern parts of Russia; variable in Austria, Southerly in Algeria. No important change occurring during day.

Barometer highest, 30·6 ins. and upwards in a large area lying to the northward of our Islands and the westward of Norway; 30·3 ins. and upwards in an anticyclone covering the greater part of north-western Europe. Lowest, 29·6 ins. and less, in a depression lying over northern Russia; 29·9 ins. and less in a shallow disturbance lying over the south-western parts of the Spanish Peninsula. Anticyclone subsequently moving slowly southwards and slight rise of barometer taking place in most parts of western Europe.

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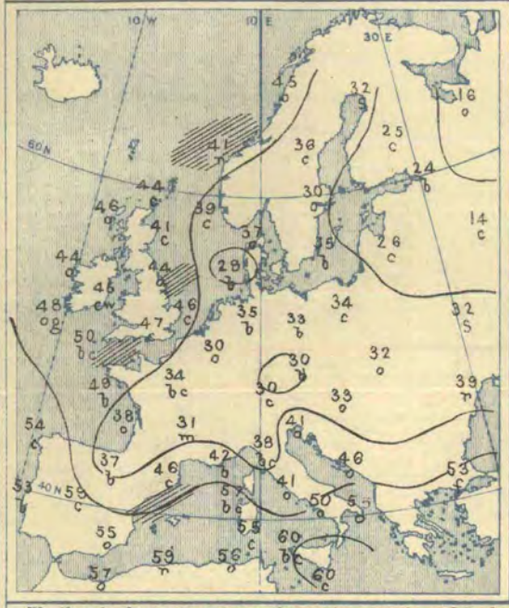
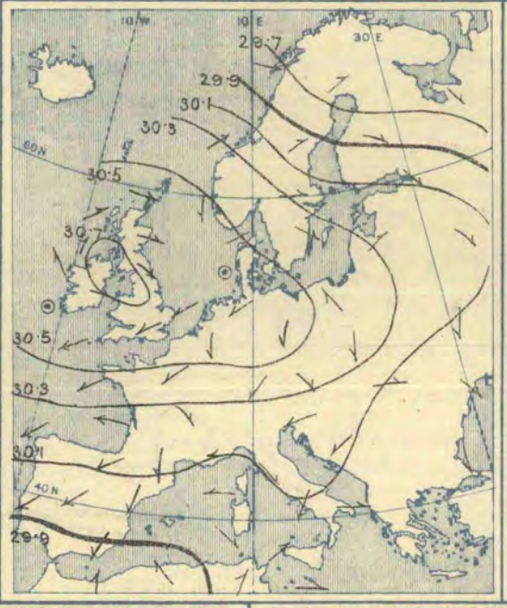
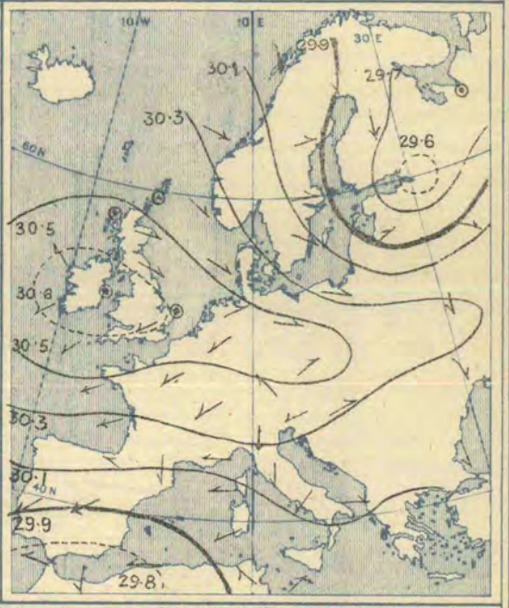
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 5th November.

Temperature and Weather.	Barometer and Wind.	
8 a.m.	8 a.m.	6 p.m.







Weather cloudy or overcast over the greater part of our Islands and the Continent, with rain in the west of Norway and extreme south of Russia, and snow in Lapland, as well as at Moscow and Kiev. Rain also falling in Algeria, but weather fine and bright over Denmark, Germany, the Netherlands, France, and northern Italy. No important change occurring during day, but rain falling in Denmark and the south of Scandinavia and snow at some of the Russian stations.

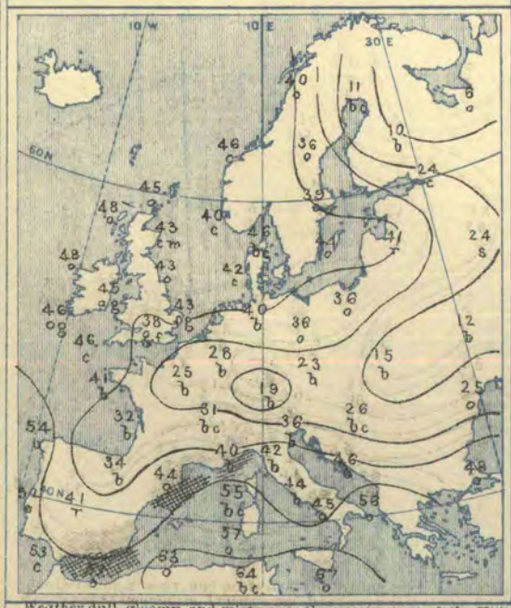
Temperature highest, 60° at Palermo and Malta, 59° at Madrid and Algiers, and 57° at Oran; above 50° over the central and southern parts of the Mediterranean generally, and just reaching that point over the western parts of the English Channel. Lowest, 14° at Moscow, 16° at Archangel, 22° at Warsaw, and 24° at St. Petersburg and Memel; below the freezing point over the greater part of Russia and central Europe, as well as over the central parts of France. Daily maxima below 50° over the greater part of our Islands and France, and below 40° at some of the German stations. Thermometer exceeding 60° over the southern parts of Spain and Italy, the highest reading of all being 66° at Cagliari and Malta.

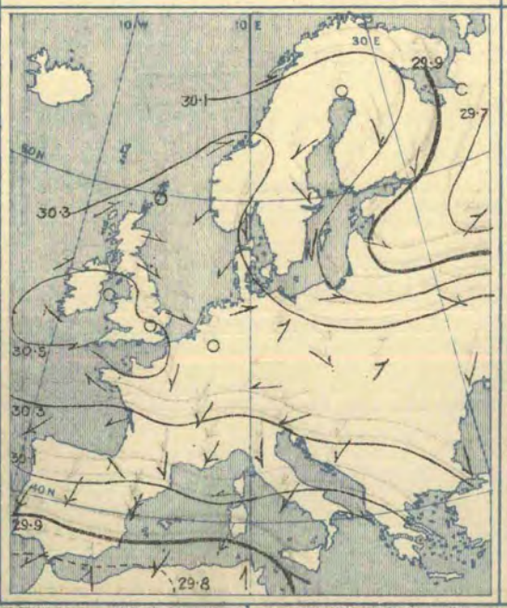
Wind strong from the South-Westward over the northern parts of Scandinavia, light or moderate from the Westward in the south, light from the North-Westward or Northward over Russia, Germany, Austria, and some parts of Italy. Light to fresh from the Eastward or North-Eastward over England, France, and Spain, South-Easterly in Ireland, South-Westerly or Westerly in Scotland. Subsequently veering to the Northward in the north of Scandinavia and falling light, but increasing to a strong breeze from the North-Westward over the Gulf of Finland.

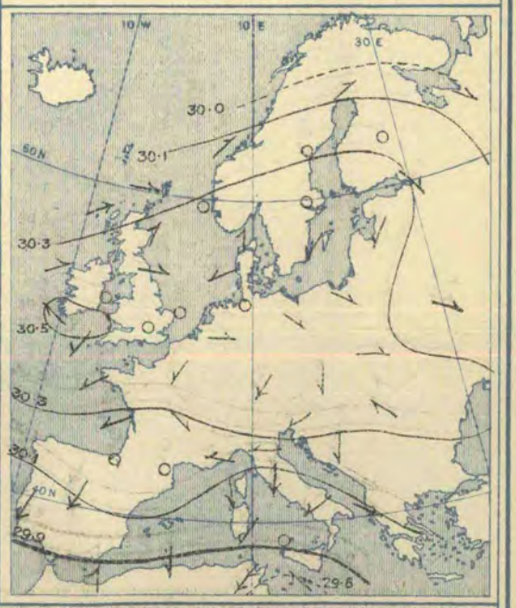
Barometer highest, 30·7 ins. and upwards over the Irish Sea, the north of England, and the south of Scotland; 30·4 ins. and upwards in an anticyclone covering the whole of north-western Europe. Lowest, 29·7 ins. and less over the northern parts of Russia and Scandinavia; 29·8 ins. in a small depression lying over Algeria. Well-marked depression advancing rapidly over Finland during day from the north-westward; barometer rising quickly in its rear over the north of Scandinavia.

Friday, 6th November.

Temperature and Weather.	Barometer and Wind.	
8 a.m.	8 a.m.	6 p.m.







Weather dull, gloomy, and misty over the greater part of the United Kingdom, as well as at some of the Scandinavian, German, and Russian stations; rain falling at Riga and snow at Moscow. Fine in most other parts of Europe, but dull in Algeria and central Spain, with rain at Nemours and Madrid. Rain falling during day in Norway and the north and north-west of our Islands, as well as at one or two of our eastern and south-eastern stations, and snow over the southern parts of Russia and Austria.

Temperature highest, 67° at Malta, 61° at Tunis, 63° at Algiers, and 60° at La Calle; above 50° at most of the Mediterranean stations, and also on the coasts of the Iberian Peninsula, but below 45° over the Riviera and northern Italy. Lowest, 6° at Archangel, 8° at Uleaborg and Kharkov, 10° at Kuopio, 11° at Haparanda, and 12° at Kiev; considerably below the freezing point over the whole of Russia and central Europe. Daily maxima below 50° in nearly all parts of the United Kingdom, and below 40° at some of the German stations; thermometer exceeding 50° in the south of France, and exceeding 70° in Algeria and Sicily, the highest readings of all being 75° at Sanguinaire and 73° at Palermo, Tunis, and Biskra.

Wind light from the South-Westward over the northern parts of the United Kingdom and the west of Norway, moderate from the Northward over Finland and Sweden, light from West over north Germany and central Russia. Light from the North-Eastward over France and the extreme south of our Islands; moderate to strong from the same quarter over southern Europe and the Mediterranean, with a gale at Barcelona. No important change occurring during day.

Barometer highest, 30·5 ins. and upwards over the greater part of England and Ireland, and also over Bohemia and Silesia; 30·2 ins. and upwards over nearly the whole of Europe. Lowest, 29·7 ins. and less in a depression lying over central Russia; 29·8 ins. and less in another system lying over Morocco and Algeria. Large disturbance passing along in an easterly direction to the northward of our Islands during day, and barometer falling somewhat decidedly on our extreme northern coasts. Russian disturbance passing away quickly to the eastward.

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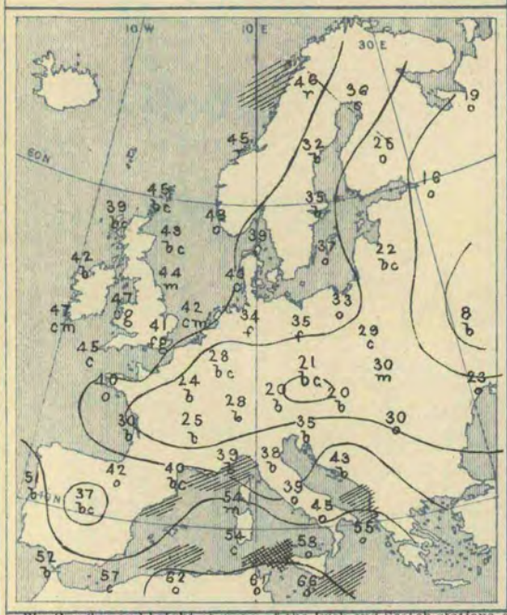
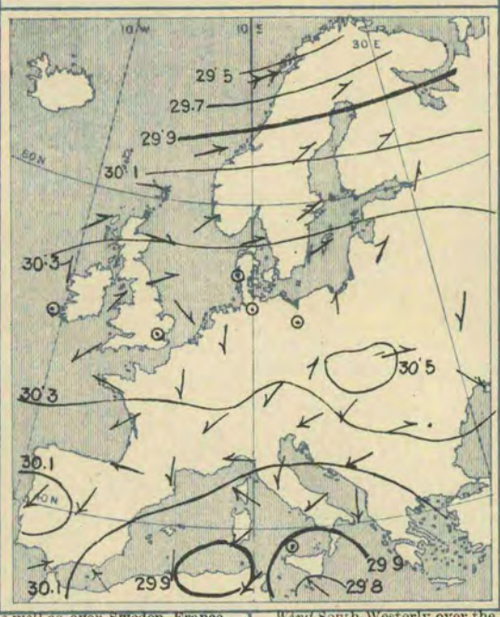
Saturday, 7th November.

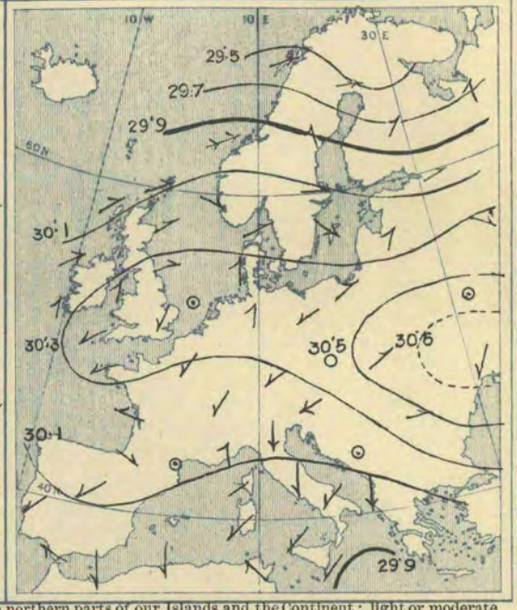
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright at many of the Irish and Scotch stations, as well as over Sweden, France, Spain, and northern Italy. Dull elsewhere, with a good deal of fog over England, the Netherlands, and north Germany, with rain in the west of Norway and with snow at Nicolaieff. Slight rain setting in over the western parts of Ireland and Scotland at night; thunderstorms and heavy rain occurring in Algeria.

Temperature highest, 66° at Malta, 62° at Algiers, 61° at Tunis, and 58° at Palermo and La Calle; above 50° over the central and southern parts of the Mediterranean generally, and very little below that point on the west coasts of our Islands and Norway. Lowest, 7° at Kharkov, 8° at Kiev, 16° at St. Petersburg, 18° at Vienna, and 19° at Archangel; below the freezing point over France, south Germany, Austria, and nearly the whole of Russia. Daily maxima very little above 50° in any part of the United Kingdom, and below 40° at some of the German stations. Thermometer exceeding 60° over Algeria and the southern parts of Spain and Italy, the highest reading of all being 79° at Sanguinaire and Laghouat.

Wind South-Westerly over the northern parts of our Islands and the Continent; light or moderate in force generally, but strong to a gale in the west of Norway. Light or moderate from the North-Eastward or Eastward over France, Spain, Italy, and the extreme south of our Islands; variable over Denmark, Germany, and Austria. Considerable increase of wind from the Southward and South-Westward taking place at night on our extreme west and north-west coasts.

Barometer highest, 30·5 ins. and upwards over Bohemia and Galicia; 30·3 ins. and upwards in a large anticyclone covering all the more central parts of the Continent and embracing nearly the whole of the United Kingdom. Lowest, 29·6 ins. and less in a depression lying off the north-west of Norway; 29·8 ins. and less in a shallow disturbance lying to the southward of Italy; 30·1 ins. and less in a still shallower area over Portugal. New disturbance advancing later from the Atlantic to the north of our Islands, and barometer falling briskly in Ireland and Scotland.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The distribution of pressure over Europe was almost continuously anticyclonic, the only interruptions being afforded by one or two depressions which advanced over Russia from the north-westward, and which occasioned snow in that country and the north of Scandinavia. Shallow disturbances were observed on more than one occasion over the Mediterranean, but these did not materially affect the weather over the Continent. At the commencement of the week the central part of the anticyclone lay to the northward of the United Kingdom, whence it spread south-eastward over the North Sea to central Europe. On the 3rd the eastern portion of the system gave way, and the highest barometer readings were again observed in the far north. After drifting slowly southwards the anticyclone again spread eastwards over the Continent on the 5th and 6th, but at the close of the week the system was beginning to break up. The prevailing winds were mostly North-Westerly in the extreme north, but North-Easterly or Easterly over the central, southern, and western countries. At the end of the period, however, increasing breezes from the South-Westward were setting in over the north of our Islands and the west of Norway.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 260.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration	Difference from Mean for the Week.
EDINBURGH	4·8	?	8	?	NEWQUAY	17·0	?	26	?
OSWALDKIRK (Yorkshire)	0·5	?	1	?	TORQUAY	5·4*	?	14*	?
WORKSOP	0·8	−13·7	1	−22	ARLEY COTTAGE (County Cavan)	7·3	?	12	?
THURCASTON (Leicestershire)	5·3	− 8·9	8	−15	GUERNSEY	22·7*	?	34*	?
EASTBOURNE	15·3	?	24	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.

By whom Subscriptions, payable in advance, can be received.

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VOL. VIII. No. 45.] *Third Series.* WEEK ENDING SATURDAY, 14TH NOVEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881–90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 266.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	Accumulated. From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	52	29	46·8	38·2	42·5	1 above.	19	− 3	11	− 3	2025	+211	676	+ 83
	1. SCOTLAND, EAST -	50	31	46·6	36·9	41·8	1 above.	13	−11	21	+ 3	2241	− 56	759	+134
	2. ENGLAND, N.E. - -	53	30	47·2	36·2	41·8	1 below.	15	−12	25	+14	2366	− 94	628	+101
	3. ENGLAND, EAST -	54	28	49·6	35·6	42·6	1 below.	31	+ 2	18	+ 5	2779	− 68	715	+112
	4. MIDLAND COUNTIES	54	24	49·5	34·7	42·1	1 below.	31	+ 3	20	+ 5	2679	−104	712	+106
	5. ENGLAND, SOUTH -	58	30	51·5	39·6	45·6	1 above.	35	− 2	7	− 1	2994	− 98	578	+136
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	52	33	47·2	39·8	43·5	1 above.	20	− 6	6	− 4	2461	+ 88	500	+ 52
	7. ENGLAND, N.W. -	54	33	48·3	38·5	43·4	1 below.	25	− 4	10	+ 2	2612	+ 35	470	+ 36
	8. ENGLAND, S.W. -	55	31	51·0	40·7	45·9	0 (average)	33	− 7	4	0	2755	−132	439	+111
	9. IRELAND, NORTH -	51	27	46·6	36·1	41·4	2 below.	13	−16	24	+14	2551	+ 22	445	+ 58
	10. IRELAND, SOUTH -	53	28	48·5	37·3	42·9	3 below.	26	−15	13	+ 6	2827	− 36	342*	+ 46
	— CHANNEL ISLANDS -	57	33	52·2	43·1	47·7	2 below.	40	−17	0	0	3244	− 46	162	+ 40

Rainfall.

	DISTRICTS. (See p. 266.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	6	23	10 more.	206	− 2	44·3	+ 3·3
	1. SCOTLAND, EAST -	6	17	9 more.	156	−15	25·8	− 1·8
	2. ENGLAND, N.E. - -	6	14	7 more.	152	− 6	20·9	− 1·9
	3. ENGLAND, EAST -	6	10	4 more.	164	+ 9	23·0	+ 0·5
	4. MIDLAND COUNTIES-	7	15	8 more.	163	+10	26·0	+ 0·9
	5. ENGLAND, SOUTH -	7	21	14 more.	157	+ 8	28·8	+ 4·8
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	6	24	11 more.	169	−10	38·5	− 3·7
	7. ENGLAND, N.W. - -	6	20	11 more.	154	−12	30·3	+ 0·2
	8. ENGLAND, S.W. - -	7	27	16 more.	165	− 7	37·5	+ 2·9
	9. IRELAND, NORTH -	6	11	3 more.	185	− 9	28·8	− 2·6
	10. IRELAND, SOUTH -	6	23	14 more.	169	− 9	33·0	− 0·4
	— CHANNEL ISLANDS -	7	20	10 more.	164	−19	30·9	+ 2·8

Bright Sunshine.

	DISTRICTS. (See p. 266.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	7	− 1	12	− 3	1113	+ 2	27	0
	1. SCOTLAND, EAST -	12	0	21	− 5	1243	− 39	30	− 2
	2. ENGLAND, N.E. - -	18	− 4	14	− 7	1166	− 12	29	0
	3. ENGLAND, EAST -	16	0	26	0	1358	− 80	34	− 2
	4. MIDLAND COUNTIES-	11	− 2	18	− 5	1271	− 11	32	0
	5. ENGLAND, SOUTH -	14	+ 2	22	+ 2	1465	+ 72	37	+ 2
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	5	− 6	9	− 9	1306	+ 40	32	+ 1
	7. ENGLAND, N.W. - -	5	− 6	8	−10	1194	− 59	30	− 1
	8. ENGLAND, S.W. - -	7	− 8	10	−13	1511	+ 7	38	+ 1
	9. IRELAND, NORTH -	12	− 4	21	− 6	1267	+105	31	+ 2
	10. IRELAND, SOUTH -	12	− 4	19	− 7	1385	+ 30	34	0
	— CHANNEL ISLANDS -	17	0	27	0	1888	+123	47	+ 3

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather during this period was very unsettled and rough generally. Rain was very frequent and the amounts were large in nearly all places.

Temperature was a little above the mean in Scotland and the south of England, and about equal to it in England S.W. In all other districts it was rather below the normal. The highest of the maxima were recorded at most stations either on the 10th or 11th, and ranged from 58° in England S. and 57° in the Channel Islands, to between 50° and 52° over the extreme north-western and northern parts of the Kingdom. The lowest of the minima were, generally speaking, registered on the first day of the period, when they ranged from 24° in the Midland Counties, 27° or 28° in Ireland, 28° in England E., and 29° in Scotland N., to 33° in Scotland W., England N.W., and the Channel Islands.

Rainfall was more than the mean in all districts, the excess in most instances being very considerable. In England S. the fall has been three times the normal, and in several other districts about twice as much.

Bright Sunshine showed a slight increase in most districts on that reported last week, but was still very deficient. The percentage of the possible duration ranged from between 8 and 12 in the west and extreme north of Great Britain, to 26 in England E., and 27 in the Channel Islands.

Barometer and Wind.—At the commencement of the period the anticyclone which prevailed during the previous week was moving away to the eastward, depressions began to travel north-eastwards over our north-western and northern coasts, while some very shallow secondary systems passed over England. These disturbances produced no great increase of wind over our Islands, but during the night of the 10th—11th an exceedingly deep disturbance advanced over Wales from the south-westward and caused violent cyclonic gales in all parts of the United Kingdom and France, and later on over north-western Europe generally. During the 11th and 12th the system moved north-north-eastwards and apparently filled up off the west of Norway during the early morning of the 13th. This depression was followed by another of about equal intensity, which appeared off the south-west of Ireland during the evening of the 12th, and caused very severe gales on our south-west coasts. During the night, however, it partially dispersed or receded to the Atlantic and the gales suddenly subsided. No other important disturbance appeared over us and the winds consequently became moderate to fresh in force and South-Easterly or Easterly in direction.

* This value has been altered owing to the receipt of further information.

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213 70 11|91 1896

II.—DATA from which the SUMMARY on page 265 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	50	42	47·9	43·1	45·5	+ 3·7	25	0	7	1·14	+0·26	*	*	*	*
	Stornoway	49	31	46·9	34·7	40·8	− 1·2	14	29	7	2·42	+1·37	9·4	− 1·4	17	− 3
	Wick	49	37	48·0	39·3	43·7	+ 2·0	22	8	3	1·21	+0·52	*	*	*	*
	Lairg ⚓	47	29	46·0	36·2	41·1	+ 1·0	11	23	7	3·34	+2·44	*	*	*	*
	Glencarron ⚓	48	32	45·1	35·7	40·4	0·0	9	24	6	3·43	+1·15	*	*	*	*
	Fort Augustus ⚓	49	35	46·2	37·9	42·1	+ 0·9	18	11	6	1·55	+0·57	6·8	?	12	?
	Fort William ⚓	52	37	47·2	40·2	43·7	+ 1·8	19	5	5	2·78	+0·98	4·1	?	7	?
1. SCOTLAND, E.	Nairn	48	31	46·7	35·3	41·0	− 0·1	13	27	5	0·75	+0·23	*	*	*	*
	Aberdeen	49	37	47·7	40·1	43·9	+ 1·9	21	5	5	2·02	+1·29	11·5	− 2·5	20	− 5
	Braemar ⚓	45	34	43·3	36·3	39·8	+ 1·4	4	21	7	2·37	+1·46	3·7†	? †	6†	?†
	Ochtertyre ⚓	50	34	47·4	36·7	42·1	+ 1·5	23	15	7	2·82	+1·80	*	*	*	*
	Leith	50	37	48·9	38·6	43·8	+ 0·6	27	10	5	0·65	+0·13	*	*	*	*
	Marchmont ⚓	48	33	45·5	34·4	40·0	− 0·8	10	29	4	1·32	+0·50	16·0	?	28	?
2. ENGLAND, N.E.	Alnwick Castle	50	32	46·4	36·3	41·4	− 1·0	12	23	5	2·15	+1·36	*	*	*	*
	Durham	51	31	46·8	35·2	41·0	− 0·6	13	27	7	1·22	+0·53	10·2	− 3·2	17	− 7
	Shields	50	33	47·6	35·0	41·3	− 1·8	16	28	5	1·50	+0·90	*	*	*	*
	Scarborough ⚓	51	32	45·9	36·8	41·4	− 2·4	11	21	7	1·28	+0·58	*	*	*	*
	York	53	30	47·9	35·6	41·8	− 0·7	17	27	7	1·49	+0·98	6·2	− 5·6	10	− 8
	Spurn Head	51	37	48·7	38·4	43·6	− 0·3	26	10	6	0·46	−0·09	*	*	*	*
3. ENGLAND, E.	Hillington ⚓	53	28	49·0	34·4	41·7	− 1·0	20	32	7	0·83	+0·22	16·6	+ 3·2	27	+ 5
	Yarmouth	53	35	49·1	38·0	43·6	− 0·4	28	11	5	0·92	+0·20	*	*	*	*
	Geldeston	53	31	49·5	36·9	43·3	− 0·6	31	14	6	0·99	+0·36	19·0	+ 2·7	31	+ 5
	Cambridge	54	28	50·7	33·6	42·2	− 0·7	37	24	7	0·77	+0·29	12·0	− 4·0	19	− 7
	Rothamsted	54	28	49·9	34·9	42·4	+ 0·2	33	20	7	1·35	+0·73	16·8	?	27	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	52	32	48·9	35·3	42·1	− 0·3	29	19	7	1·20	+0·67	*	*	*	*
	Loughborough	54	25	51·0	33·9	42·5	− 0·5	38	23	6	1·17	+0·65	*	*	*	*
	Stamford (Ketton Hall)	54	24	51·3	33·1	42·2	− 0·6	39	25	6	1·35	?	*	*	*	*
	Cheadle ⚓	51	29	47·0	35·4	41·2	− 0·3	14	27	7	1·77	+1·02	*	*	*	*
	Churchstoke ⚓	51	28	47·7	34·5	41·1	− 1·1	16	30	7	1·58	+0·77	5·3	− 7·6	9	−12
	Hereford ⚓	53	28	49·9	35·9	42·9	− 0·6	32	17	7	1·81	+1·21	*	*	*	*
	Cirencester	53	25	49·4	33·6	41·5	− 0·6	21	35	7	1·46	+0·75	? 6·5	−11·5	? 10	−13
	Oxford	54	30	50·6	36·1	43·4	0·0	35	17	7	1·35	+0·80	16·1	+ 1·9	26	+ 3
5. ENGLAND, S.	London	54	33	51·4	37·4	44·4	+ 0·2	36	13	6	1·75	+1·24	10·8 †	+ 0·8†	17†	+ 2†
	Strathfield Turgiss ⚓	55	33	50·9	36·3	43·6	+ 0·4	35	16	7	1·75	+1·15	*	*	*	*
	Dungeness	54	35	51·4	42·6	47·0	+ 1·4	35	0	6	0·91	+0·10	*	*	*	*
	Hastings (St. Leonards)	55	37	51·3	41·3	46·3	+ 0·6	33	2	7	1·65	+0·87	18·3	+ 1·3	29	+ 1
	Southampton	55	30	51·8	39·5	45·7	+ 0·6	36	7	7	2·58	+1·88	16·9	+ 2·0	27	+ 4
	Hurst Castle	58	34	53·0	42·6	47·8	+ 1·7	41	0	7	2·83	+2·11	*	*	*	*
	Stowell ⚓	55	31	50·5	37·7	44·1	+ 0·5	33	12	7	2·87	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	52	37	47·9	40·3	44·1	+ 1·3	22	5	5	2·16	+0·06	*	*	*	*
	Glasgow	48	38	46·5	39·6	43·1	+ 1·1	18	7	7	1·82	+0·94	5·6	− 1·4	10	− 2
	Ardrossan	50	39	48·0	41·7	44·9	+ 0·9	21	1	7	2·25	+1·34	*	*	*	*
	Glenlee ⚓	47	33	45·1	37·4	41·3	+ 0·2	9	19	7	3·16	+1·72	*	*	*	*
	Douglas (Isle of Man)	51	37	48·3	39·9	44·1	− 0·5	24	6	6	2·68	+1·58	4·1	−10·9	7	−18
7. ENGLAND, N.W.	Newton Reigny	48	34	45·0	36·4	40·7	− 0·7	8	22	7	2·68	+1·87	3·7	− 7·6	6	−12
	Stonyhurst	51	33	46·3	38·1	42·2	− 0·8	18	11	7	2·03	+0·94	3·3	− 7·8	6	−13
	Blackpool ⚓	53	34	50·9	36·6	43·8	+ 0·2	35	15	6	1·46	+0·65	4·2	− 6·9	7	−12
	Manchester	54	35	48·5	38·3	43·4	+ 0·6	25	10	7	1·94	+1·09	*	*	*	*
	Liverpool Obsy. (Bidston)	51	33	48·1	37·9	43·0	− 1·2	24	11	7	1·47	+0·77	*	*	*	*
	Llandudno ⚓	50	35	48·9	39·7	44·3	− 1·6	26	6	6	1·55	+0·72	7·5	− 3·7	12	− 7
	Holyhead	52	41	50·1	42·6	46·4	− 0·5	31	0	5	2·60	+1·68	*	*	*	*
8. ENGLAND, S.W.	Llandovery	55	31	50·3	34·1	42·2	− 1·7	35	22	7	2·25	+1·05	*	*	*	*
	Pembroke	54	40	51·4	44·7	48·1	+ 0·7	43	0	7	2·78	+1·86	5·4	− 9·5	9	−15
	Arlington (N. Devon)	54	36	49·6	37·9	43·8	− 0·6	30	11	7	2·68	+1·18	*	*	*	*
	Cullompton ⚓	55	34	50·3	38·2	44·3	− 0·5	32	11	7	3·54	+2·75	4·4	− 8·1	7	−12
	Falmouth	55	40	51·7	42·8	47·3	− 0·7	37	0	7	3·21	+1·92	8·5	− 9·5	13	−15
	Plymouth	54	42	52·0	43·7	47·9	+ 1·1	41	0	7	2·87	+1·99	7·2	− 7·8	11	−12
	Prawle Point	54	40	51·4	43·9	47·5	+ 0·6	39	0	7	1·22	+0·48	*	*	*	*
9. IRELAND, N.	Malin Head	48	37	45·9	39·4	42·7	− 0·8	16	7	6	1·28	?	*	*	*	*
	Londonderry	48	33	45·9	37·2	41·6	− 1·9	11	20	7	0·97	−0·03	*	*	*	*
	Mullaghmore	50	36	46·9	39·4	43·2	− 2·7	19	7	5	0·63	−0·42	*	*	*	*
	Belmullet	49	35	47·1	38·7	42·9	− 4·1	20	9	7	0·97	?	*	*	*	*
	Markree Castle	49	28	47·1	33·4	40·3	− 2·3	14	34	6	0·94	+0·10	10·3	− 3·4	17	− 6
	Brookeborough	48	29	44·9	33·6	39·3	− 2·6	8	32	5	1·26	+0·28	*	*	*	*
	Armagh	50	30	46·6	35·8	41·2	− 1·3	13	25	5	1·34	+0·66	10·5	− 3·1	18	− 5
	Donaghadee	51	30	48·0	34·3	41·2	− 3·0	17	32	6	1·98	+1·23	*	*	*	*
	Edgeworthstown	48	27	46·9	33·1	40·0	− 2·5	14	35	3	0·86	+0·05	*	*	*	*
10. IRELAND, S.	Dublin	51	36	48·5	38·6	43·6	− 1·6	25	10	7	2·10	+1·51	10·3	− 7·0	17	−11
	Parsonstown	51	28	46·9	34·9	40·9	− 2·6	14	28	4	1·37	+0·72	12·4	− 3·0	20	− 6
	Kilkenny	52	30	47·4	34·1	40·8	− 4·1	15	32	6	1·46	+0·86	*	*	*	*
	Waterford	52	34	49·1	37·4	43·3	− 3·4	28	13	7	3·16	+2·28	*	*	*	*
	Roche's Point	53	37	50·3	40·1	45·2	− 1·8	30	5	7	3·37	+2·33	*	*	*	*
	Valencia	52	34	50·3	40·3	45·3	− 2·7	30	5	7	1·99	+0·70	12·7	− 2·7	20	− 4
	Killarney	52	30	46·7	35·4	41·1	− 4·9	13	27	6	2·27	?	*	*	*	*
	Foynes												*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	54	40	51·3	43·6	47·5	− 2·4	39	0	7	1·87	+1·01	*	*	*	*
	Jersey	57	33	53·0	42·6	47·8	− 0·7	41	0	7	2·05	+1·05	17·1	0·0	27	+ 1

Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

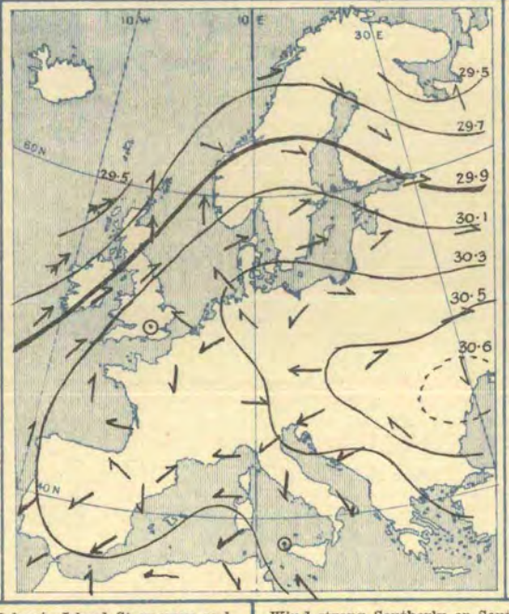
Sunday, 8th November.

Temperature and Weather.

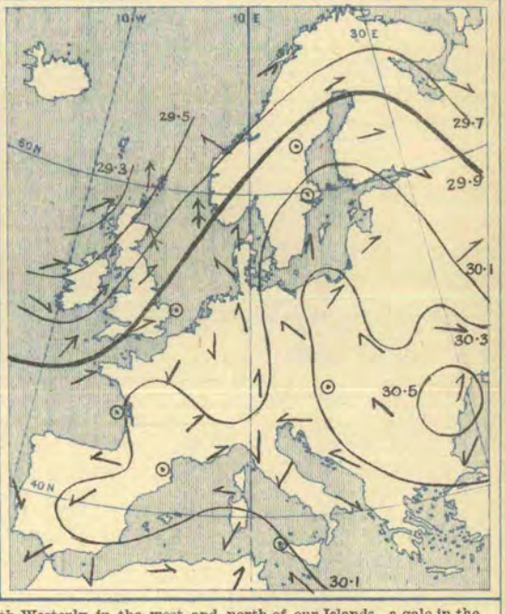
8 a.m.

Barometer and Wind.

8 a.m.



6 p.m.



Weather dull in the west and north of our Islands, with rain at Valencia Island, Stornoway, and in the north of Scandinavia. Fine in most other parts of Europe, but foggy over central England, as well as over Denmark, the Netherlands, and some parts of France and Germany. Sky clearing later over England, but rain falling in all the more western and northern parts of the United Kingdom—heavily in places. A considerable quantity at some isolated stations on the Mediterranean coast also.

Temperature highest, 60° to 65° on the southern side of the Mediterranean; above 50° on the Spanish coasts and in Sardinia, and just reaching that point in the south-east of Ireland. Lowest, 8° at Kharkov, 10° at Kiev and Nicolaieff, 15° at Odessa, and 22° at Moscow and Buda-Pesth; below the freezing point in most parts of Russia and central Europe, as well as over the inland parts of England. Daily maxima exceeding 60° over Italy, touching 70° at some Algerian stations, and 50° or a little above at some of our own western and southern stations, but thermometer remaining below 40° over the Netherlands, Germany, and central France.

Wind strong Southerly or South-Westerly in the west and north of our Islands—a gale in the Hebrides and west of Ireland; light or moderate from the Westward over Scandinavia and northern Russia. Light from the Eastward or North-Eastward over France, Spain, Italy, and the extreme south-east of England; variable in Germany and Austria; Easterly to South-Easterly in Algeria. Southerly or South-Westerly winds extending later to all parts of the United Kingdom, and blowing a gale at several of the Irish and Scotch stations.

Barometer highest, 30·6 ins. and upwards over the south of Russia; 30·2 ins. and upwards in another large anticyclone covering all but the extreme northern and north-western parts of Europe. Lowest, 29·5 ins. and less in a depression lying to the north-westward of Scotland; 29·6 ins. and less in another area lying over the White Sea. Depression to north-westward of our Islands subsequently spreading out in an easterly and south-easterly direction, and barometer falling briskly in all parts of the Kingdom.

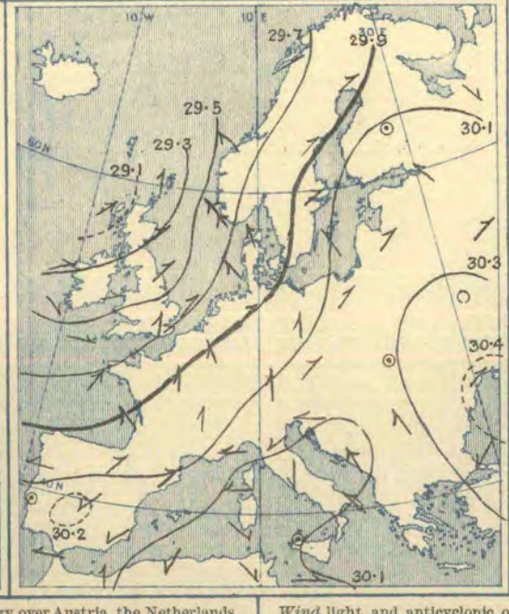
Monday, 9th November.

Temperature and Weather.

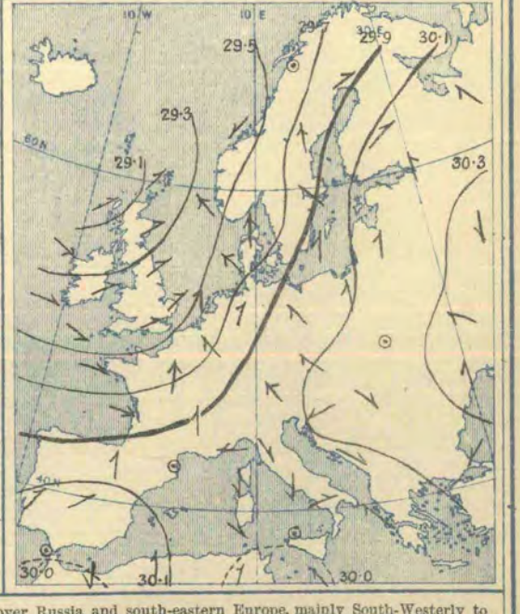
8 a.m.

Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over France and Germany, foggy over Austria, the Netherlands, and Finland, cloudy or overcast elsewhere; rainy in many parts of the British Islands, and unsettled over north-western Europe generally; considerable rain over the south and south-east of England later, and smaller quantities in many other parts of western Europe; hail at Mullaghmore and Jersey; lightning in some places. Very heavy rain at Palermo and a considerable fall over Algeria.

Temperature rising decidedly over south-eastern Europe and in England, but, as a whole, changing fitfully; morning readings all below 60° in Europe, and below 50°, except on some of the southern and western coasts; below 30° over most inland countries, and as low as (1) 18° at Hermanstadt and Nicolaieff, 19° at Lemberg, 21° at Kiev; (2) 22° at Paris and Wiesbaden, 23° at Belfort, 27° at Brussels; (3) 13° at Archangel, 27° at St. Petersburg and Kuopio, 30° at Uleaborg; (4) 38° at Donaghadee, 39° at Parsonstown. Continuing to change fitfully during day. Maxima scarcely exceeding 50° on the south coast of England, but exceeding 60° in the south of France and over Italy, and touching 70° at Palermo and Malta.

Wind light and anticyclonic over Russia and south-eastern Europe, mainly South-Westerly to South-Easterly (cyclonic) over the north-western countries, but North-Westerly at Valencia Island. Gales of Sunday all died down. Veering to Westward in the south of our Islands and north of France later, but continuing South-Easterly on the eastern shores of the North Sea, and blowing strongly in places.

Barometer highest, 30·4 ins. and more to 30·2 ins. over south-eastern Europe generally; 30·2 ins to 30·0 ins. over the southern half of Spain. Lowest, 29·1 ins. and less off the extreme north-west of Scotland. Gradients rather steep over the British Isles and somewhat irregular. Local disturbances passing across England during the day.

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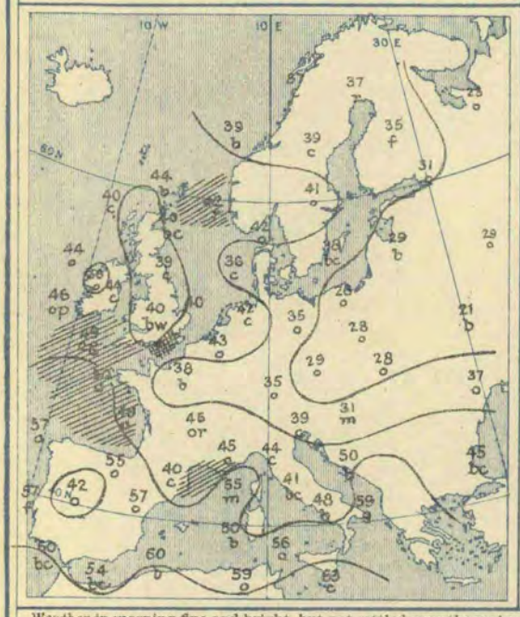
Tuesday, 10th November.

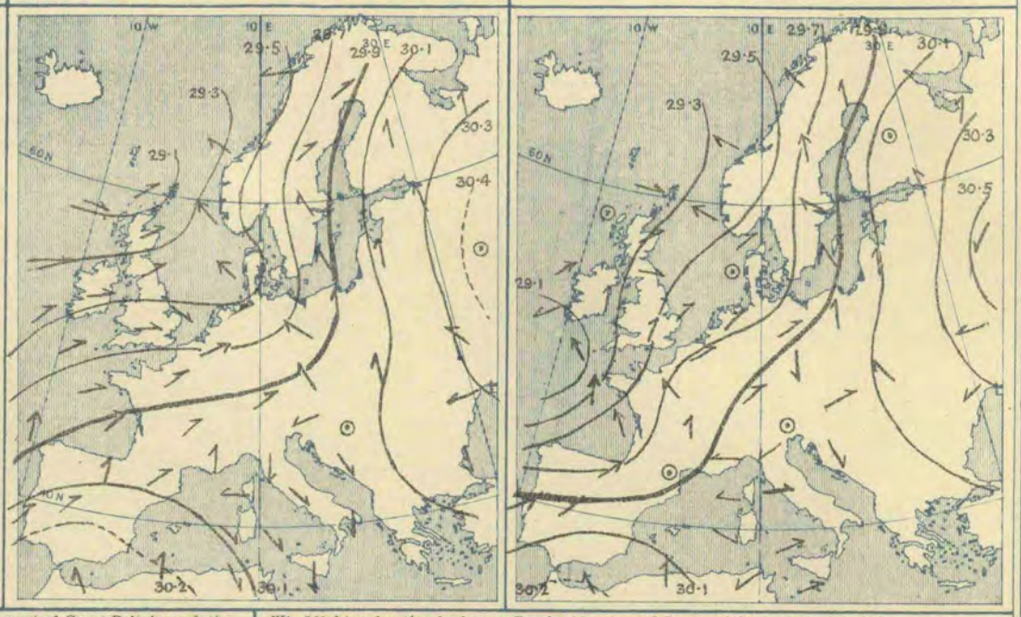
Temperature and Weather. 8 a.m.



Weather in morning fine and bright, but not settled over the major part of Great Britain and the north of France; fair, as a whole, over Russia, most parts of south-eastern Europe, and on the southern side of the Mediterranean; very dull and unsettled elsewhere, with rain in many localities. Rain later over the whole of our Islands and their neighbourhood—especially heavy over the south-western and southern districts, where fall ranged between 0·5 in. and 1·1 ins.; heavy falls over Brittany and the west of France, and smaller quantities on the eastern side of the North Sea.

Temperature still changing very fitfully—fallen over the British Islands, risen over France and south-eastern Europe. Morning readings 60° or more at Malta and Algiers only; below 50° in most places, below 40° over many parts of our Islands, France, and Sweden, and as low as 21° to 35° over Russia, and 25° to 35° over Germany; lowest of all, 21° at Kiev and 23° at Archangel. Rising to between 50° and 57° over France and the south of England later, to 60° and more in the south of Italy, and to 70° and more at Algiers and Sanguinaire.

Barometer and Wind. 8 a.m. and 6 p.m.

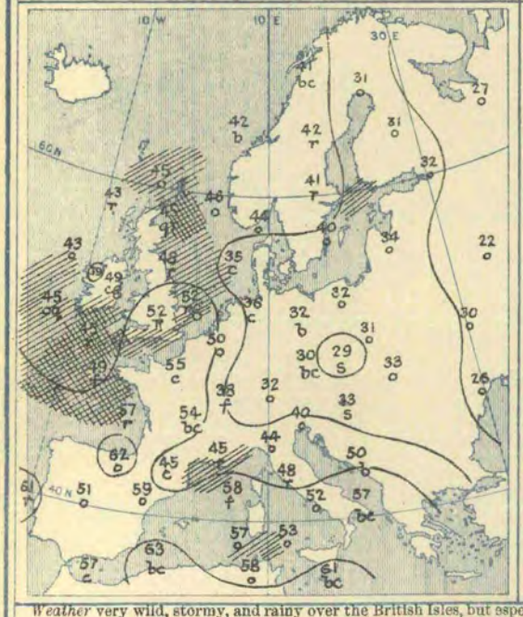


Wind light and anticyclonic over Russia, Algeria, and Spain; light to moderate, and variable, over the Mediterranean; moderate to fresh from the South-Westward over Great Britain, fresh to a gale from the South-Eastward over Scandinavia and Denmark, Westerly over the north of France. Backing to South and South-East on our western and southern coasts later and increasing greatly in force, with rain and a very unsettled appearance, while a Southerly gale set in over Brittany and a South-Westerly gale at Biarritz.

Barometer highest, 30·5 ins. to 30·1 ins. over Russia; 30·2 ins. to 30·0 ins. over Algeria, the greater part of Spain, and eastern portions of the Mediterranean. Lowest, 29·1 ins. and less in a depression off the north of Scotland; 29·4 ins. and less in a "V"-shaped secondary over the North Sea; and 29·9 ins. and less in another disturbance to the south-eastward of Malta. Falling very fast on our south-western and southern coasts later as a deep depression advanced towards the mouth of St. George's Channel from the south-westward.

Wednesday, 11th November.

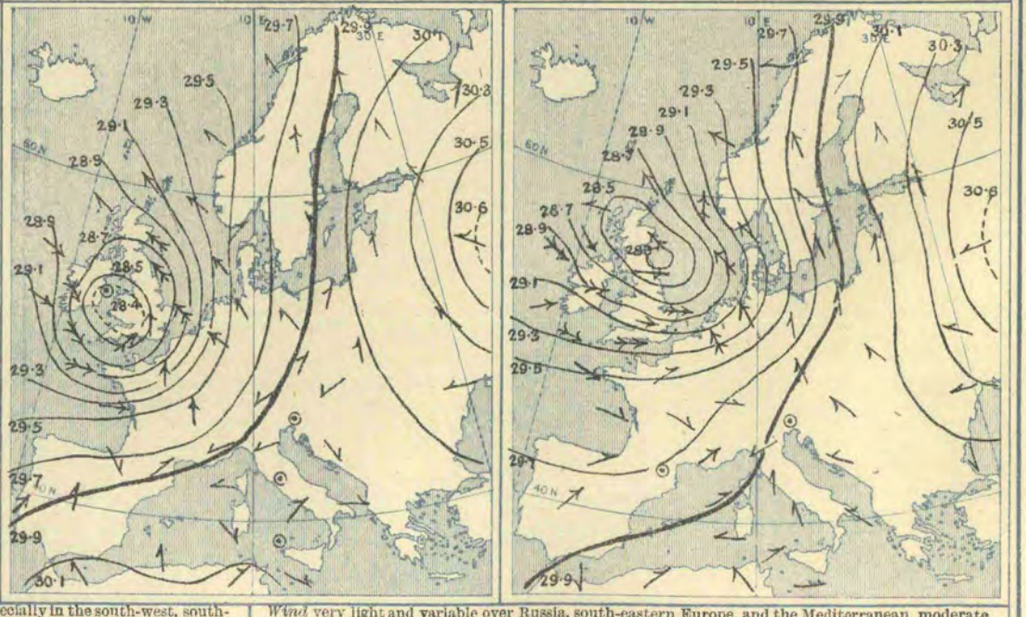
Temperature and Weather. 8 a.m.



Weather very wild, stormy, and rainy over the British Isles, but especially in the south-west, south-east, and north-east, and very unsettled over north-western Europe generally and in Portugal; quiet over the south-eastern, central, and eastern countries, but cloudy even there, with snow at Kharkov and Cracow. Much rain falling in our northern, eastern, and southern districts later, and smaller quantities in the west; heavy falls over France also, and a heavy local fall at Pesaro.

Temperature changing very irregularly—in many places rapidly; rapid (temporary) rise over England and France. Morning readings exceeding 60° at Algiers and Malta, exceeding 50° over Spain, France, and the southern and midland parts of England, and exceeding 40° over Ireland, Scotland, the east of England, and in Norway. Much lower elsewhere; lowest, 22° at Moscow, 24° at Kharkov, 26° at Odessa, 29° at Nicolaieff and Cracow, 31° at Uleaborg and Kuopio. Rising to between 50° and 58° over England later, and to 60° or more over the central and southern parts of France, and to between 70° and 80° over Algeria and at Sanguinaire.

Barometer and Wind. 8 a.m. and 6 p.m.



Wind very light and variable over Russia, south-eastern Europe, and the Mediterranean, moderate to strong from South-East on the eastern shores of the North Sea. Strong to a severe gale on the coasts of the British Isles and the north and west coasts of France—South-Easterly in the north and north-east, Southerly in the south-east, South-Westerly to Westerly in the Channel and over the Bay of Biscay, and North-Westerly in Ireland. Strong South-Easterly gales in Scotland and Norway later, Westerly gales over Ireland, severe Westerly gales over the Channel, England, the Netherlands, and north of France—moderating towards night.

Barometer highest, 30·6 ins. and more to 30·1 ins. over Russia: 30·0 ins. and more over south-eastern Europe, and also over the extreme south of Spain. Lowest, 28·4 ins. and less in a very deep depression lying over Wales and the west of England. Falling rapidly in the north-east, but inclined to recover in the south-west. Storm centre moving north-eastwards later and reaching our north-east coasts off Berwick by 6 p.m.

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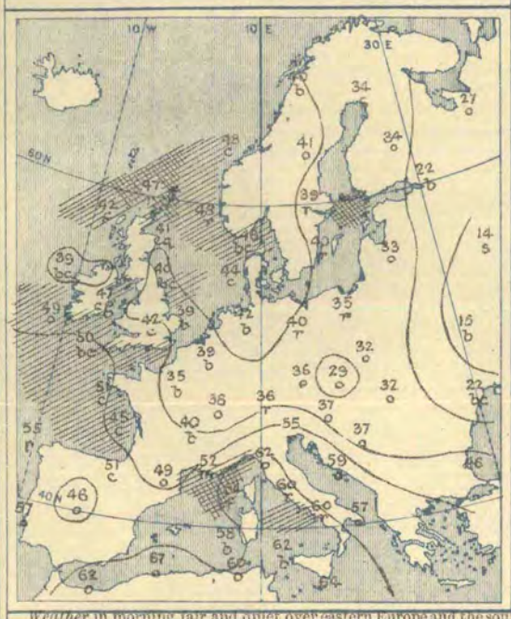
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 12th November.

Temperature and Weather.

8 a.m.

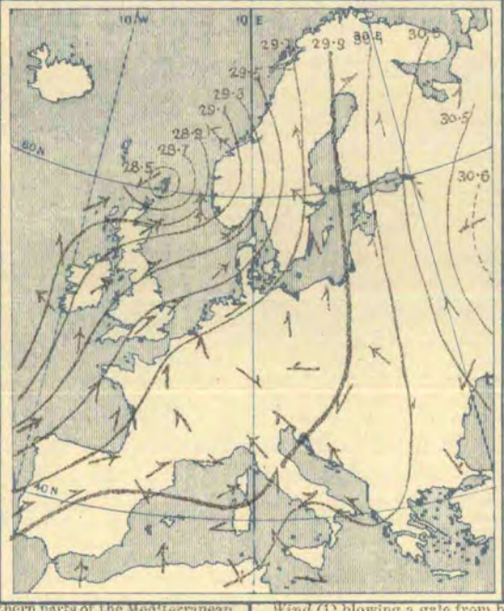


Weather in morning fair and quiet over eastern Europe and the southern parts of the Mediterranean only; unsettled elsewhere, and especially so over the Baltic, Scandinavia, and the British Isles. Rain falling at several stations over the north-western countries, snow at Uleaborg, but sky temporarily clear over the greater parts of France, England, and north of Ireland. Much rain over Brittany later, considerable quantities in the south-west of our Islands, and smaller quantities in Ireland and the western and southern counties of England; lightning seen at Prawle Point.

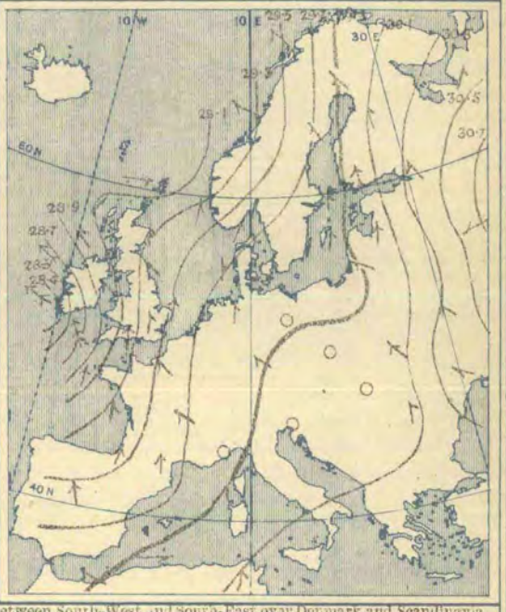
Temperature fallen greatly in most places, but risen over Norway and the Mediterranean; changes, however, very fickle. Morning readings exceeding 60° at several Italian and Algerian stations, and at Malta; not much below 50° in Norway and Denmark, but considerably lower elsewhere. Lowest, (1) 7° at Kharkov, 14° at Moscow, 15° at Kiev, and 22° at St. Petersburg; (2) 35° at Paris and 38° to 40° over the Midland counties of England. Rising later to between 50° and 53° over England and to between 60° and 65° in the south-west of France, and to 80° and more at Sanguinaire and over Algeria.

Barometer and Wind.

8 a.m.



6 p.m.



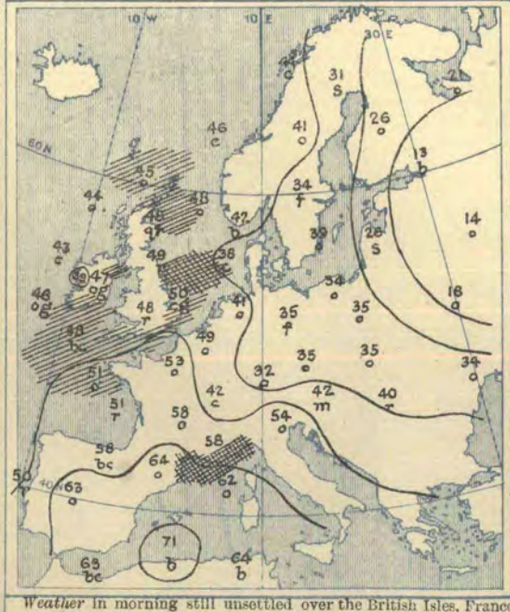
Wind (1) blowing a gale from between South-West and South-East over Denmark and Scandinavia and from North-West in Caithness; (2) moderate South-Westerly over the North Sea, fresh South-South-Westerly and Southerly over England. Strong Southerly in the Irish Sea and South-Easterly at Valencia Island, but South-Westerly over Spain. Light from the North-Eastward over the south of Russia; variable over Austria and south Germany, South-Easterly in Italy. Strong gale from the South-Eastward setting in later in the extreme west and south-west of our Islands, and wind blowing with the force of a "storm" at Scilly. Gale subsequently ceasing very suddenly.

Barometer highest, 30·6 ins. and upwards in an anticyclone over central Russia. Lowest, 28·5 ins. and less in a well-marked depression lying between the Shetlands and the Norwegian coasts; 28·9 ins. and less in another disturbance lying to the south-westward of Ireland. Latter system subsequently advancing towards our Islands and barometer falling rapidly on our south-west coasts—the 6 p.m. reading at Valencia Island being as low as 28·36 ins. Depression near Shetlands beginning to fill up, and similar change taking place in the new one off our south-western coasts.

Friday, 13th November.

Temperature and Weather.

8 a.m.

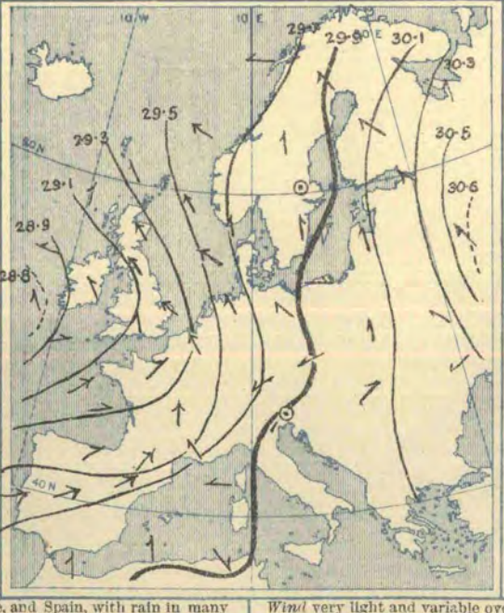


Weather in morning still unsettled over the British Isles, France, and Spain, with rain in many places; cloudy or overcast over Europe generally, with snow in several parts of Finland and at Haparanda, rain over Hungary. Rain falling heavily in France later, and in smaller quantities over our Islands and northern Italy; snow at times at Haparanda, but no fall at the other Swedish and Norwegian stations, and very little over the south-east of England. Very heavy fall (2·7 ins.) at Lyons and 0·75 in. at Nice.

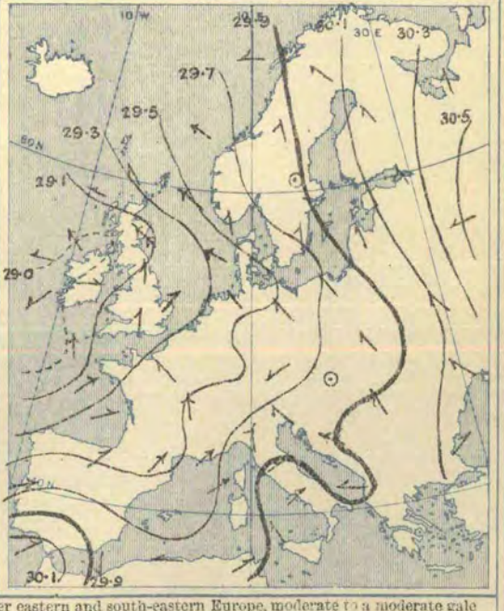
Temperature changing very irregularly; risen rapidly over France and quickly in most parts of Great Britain. Morning readings 71° at Algiers, 62° at Sanguinaire, 63° at Madrid and Barcelona [Italian reports not in], 45° to 50° over the British Isles and Norway, lower over the more inland countries. Lowest, −3° Fahr. at Kharkov, +13° at Nicolaieff and St. Petersburg, 14° at Moscow, 21° at Archangel, 32° to 38° over central Europe, 41° at Cuxhaven. Rising to between 50° and 55° in the west and south of our Islands later, to 60° and more in Italy and the south of France, to 70° at Perpignan and Palermo, and to 80° and more in some parts of Algeria.

Barometer and Wind.

8 a.m.



6 p.m.



Wind very light and variable over eastern and south-eastern Europe, moderate to a moderate gale in the west and north-west. Mainly South-Westerly over Spain, the Bay of Biscay, and English Channel; more Southerly over France and the south-east of England; South-Easterly over Ireland and the northern and eastern parts of Great Britain, as well as in Norway and on the eastern shores of the North Sea; Southerly over the Baltic and Gulfs of Bothnia and Finland. Shifting to East and North-East in the west of Ireland later, and to South-West over our south-eastern counties, and blowing a gale from East-South-East at Aberdeen, freshening from South-West over the Mediterranean.

Barometer highest, 30·6 ins. and more to 30·9 ins. over Russia, and exceeding 30·0 ins. over the south-eastern parts of the Mediterranean. Lowest, 28·8 ins. and less in a depression lying to the south-westward of Valencia Island (but filling up), and below 29·1 ins. over central England. Rising decidedly in Ireland and less quickly over France all day, falling in the north of England and over Scotland. Shallow local disturbances appearing over France.

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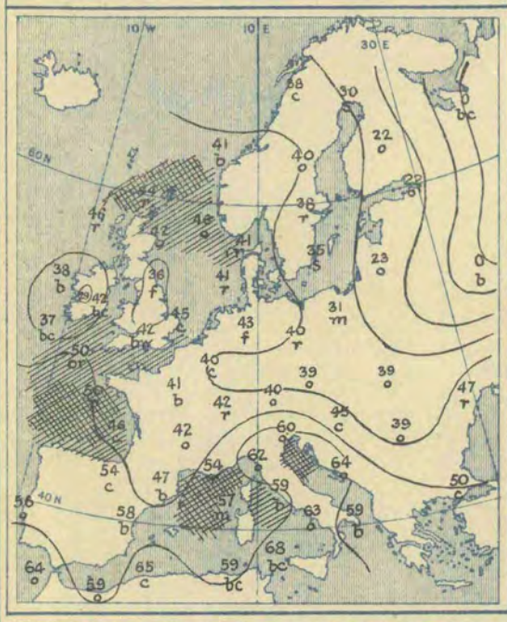
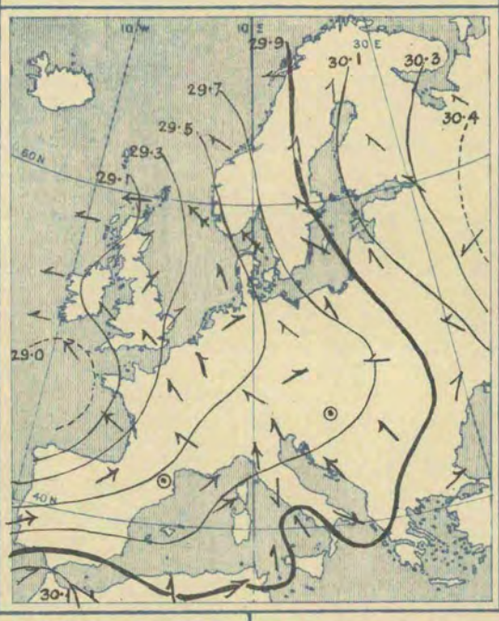
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 14th November.

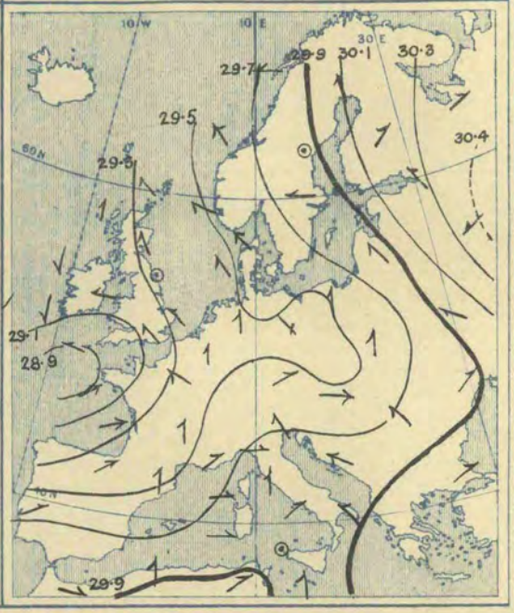
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine over Russia and on the southern shores of the Mediterranean; fair, but not settled, over the greater part of the British Islands, and changeable over Europe as a whole, with rain in several places, snow at several Finnish stations. Heavy rain in many parts of France later and smaller quantities in our Islands, and also in Germany, Italy, and Hungary.

Temperature fallen greatly over the British Islands and France, risen over central Europe. Morning readings exceeding 60° over the Adriatic and at many of the Mediterranean stations, much lower elsewhere; below 50° over France and the British Isles, below 40° over central England, and lowest of all, (1) 0° (zero) Fahr. at Archangel and Moscow, 12° at Kharkov, 22° at St. Petersburg and Kuopio, 23° at Riga; (2) 29° at Parsonstown, 36° at Donaghadee and Shields, 38° at York. Rising to a little above 50° over England later, to 60° and more in the south of France, to 70° and more in several parts of Italy and Algeria.

Wind mainly South-Easterly over Great Britain and north-western Europe generally, and blowing rather strongly on our south-western coasts, and a gale at Skudesnaes and in the Skager Rack; very light and variable in Ireland, mainly South-Westerly over the Mediterranean and South-Easterly (strong) in the Adriatic, very light and variable over central Europe. Becoming more Northerly in Ireland later, Westerly over Austria, and Southerly to South-Easterly over Poland and western Russia.

Barometer highest, 30·5 ins. and more to 30·0 ins. over Russia, and exceeding 29·9 ins. over Algeria. Lowest, 29·1 ins. and less over the north-west of Scotland, and 29·0 ins. and less in a rather complex, but dispersing, depression off our south-western coasts. Gradients very steep over the Iberian Peninsula. Rising in north and west of our Islands all day, falling over France. Depression off our south-west coasts moving eastwards.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇛ = a heavy gale; ⟹ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

The large anticyclone which covered western and central Europe last week moved eastwards to Russia during the first portion of that now under review, and depressions at once began to pass over our area from the Atlantic. The first one or two were of considerable depth and covered only the north-western parts of the Kingdom, but between the night of the 10th and morning of the 12th a very large and deep system came directly over the country, and caused severe cyclonic storms on our own and the Continental coasts, accompanied by much rain. The system disappeared on the 12th, but a new one reached our south-western districts that evening and threatened to be quite as severe as the one just named—but suddenly began to fill up, so that even the gales which had commenced blowing in the south-west and south soon died down. A shallow system subsequently appeared at the mouth of the Channel. Thus, while cold quiet weather has prevailed over eastern and south-eastern Europe, heavy rain, hard gales, and mild weather have been experienced in the west and north-west—especially during the earlier part of the week.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 266.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	17·3	?	30	?	NEWQUAY	6·1	?	10	?
OSWALDKIRK (Yorkshire)	? 8·4	?	? 14	?	TORQUAY	7·8 *	?	12 *	?
WORKSOP	9·4	− 3·2	15	− 6	ARLEY COTTAGE (County Cavan)	16·0	?	27	?
THURCASTON (Leicestershire)	17·6	+ 5·6	29	+ 8	GUERNSEY	10·5 *	?	16 *	?
EASTBOURNE	? 10·3	?	? 16	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 46.] *Third Series.* WEEK ENDING SATURDAY, 21ST NOVEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881–90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 272.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	50	26	45·8	36·1	41·0	1 above.	11	− 7	24	+ 7	2037*	+205	704*	+ 96
	1. SCOTLAND, EAST -	55	26	46·0	35·3	40·7	1 above.	11	− 9	27	+ 6	2252	− 62	786	+137
	2. ENGLAND, N.E. - -	55	30	48·7	39·3	44·0	2 above.	25	+ 2	8	− 6	2391	− 86	636	+ 91
	3. ENGLAND, EAST -	57	31	50·2	39·1	44·9	3 above.	31	+ 7	7	− 8	2810	− 56	722	+ 97
	4. MIDLAND COUNTIES	57	32	50·1	39·6	44·8	3 above.	30	+ 6	7	−11	2709	− 94	719	+ 90
	5. ENGLAND, SOUTH -	57	32	51·7	42·6	47·2	4 above.	36	+ 4	0	−10	3030	− 91	578	+121
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	53	31	48·0	38·2	43·1	1 above.	24	+ 2	11	0	2485	+ 93	511	+ 47
	7. ENGLAND, N.W. -	59	31	49·2	41·2	45·2	2 above.	26	+ 1	2	− 8	2638	+ 38	472	+ 25
	8. ENGLAND, S.W. -	57	31	51·8	43·4	47·6	3 above.	39	+ 1	0	− 5	2794	−129	439	+102
	9. IRELAND, NORTH -	56	26	47·7	37·3	42·5	0 (average)	23	− 2	13	+ 1	2574	+ 21	458	+ 57
	10. IRELAND, SOUTH -	58	27	49·6	38·6	44·1	1 below.	29	− 7	10	+ 1	2856	− 43	352	+ 45
	— CHANNEL ISLANDS -	59	43	53·7	47·7	50·7	3 above.	61	+ 9	0	− 1	3305	− 33	162	+ 39

Rainfall.

	DISTRICTS. (See p. 272.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	5	9	3 less.	211	− 2	45·2	+ 3·0
	1. SCOTLAND, EAST -	6	9	2 more.	162	−13	26·7	− 1·6
	2. ENGLAND, N.E. - -	6	7	0 (average)	158	− 4	21·6	− 1·9
	3. ENGLAND, EAST -	5	4	2 less.	169	+ 9	23·4	+ 0·3
	4. MIDLAND COUNTIES-	4	6	0 (average)	167	+10	26·6	+ 0·8
	5. ENGLAND, SOUTH -	5	4	3 less.	162	+ 9	29·2	+ 4·6
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	5	14	0 (average)	174	−10	39·9	− 3·6
	7. ENGLAND, N.W. - -	6	11	2 more.	160	−10	31·4	+ 0·5
	8. ENGLAND, S.W. - -	5	5	5 less.	170	− 7	38·0	+ 2·4
	9. IRELAND, NORTH -	6	7	1 less.	191	− 8	29·4*	− 2·9
	10. IRELAND, SOUTH -	5	5	4 less.	174	− 8	33·4*	− 0·7
	— CHANNEL ISLANDS -	6	4	6 less.	170	−18	31·3	+ 2·2

Bright Sunshine.

	DISTRICTS. (See p. 272.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	9	?	17	?	1122	+ 3	27	0
	1. SCOTLAND, EAST -	8	0	14	0	1251	− 41	30	− 1
	2. ENGLAND, N.E. - -	10	0	17	0	1176	− 11	29	0
	3. ENGLAND, EAST -	4	−12	7	−18	1362	− 90	33	− 3
	4. MIDLAND COUNTIES-	8	− 4	13	− 7	1279	− 16	31	− 1
	5. ENGLAND, SOUTH -	4	− 7	7	−11	1469	− 63	36	− 1
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	13	+ 3	24	+ 7	1319	+ 43	32	+ 1
	7. ENGLAND, N.W. - -	8	− 2	13	− 4	1202	− 61	29	− 2
	8. ENGLAND, S.W. - -	10	− 3	16	− 4	1521	+ 3	37	0
	9. IRELAND, NORTH -	19	+ 6	33	+11	1286	+109	31	+ 2
	10. IRELAND, SOUTH -	14	0	24	0	1399	+ 30	34	0
	— CHANNEL ISLANDS -	8	− 6	13	−10	1896	+112	47	+ 3

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather continued very rainy and unsettled in all parts of the Kingdom during the earlier part of the week, but towards its close a considerable improvement occurred, although rain still fell occasionally in the north and north-west.

Temperature was slightly below the mean in Ireland S., and about equal to it in Ireland N., but in all parts of England and Scotland it was above the normal value, the excess in England S. being as much as 4°. The highest of the maxima were registered either on the 13th or 19th, and ranged from 50° in Scotland N., 53° in Scotland W., and 55° in the north-east of England and the east of Scotland, to 58° in Ireland N. and 59° in England N.W. and the Channel Islands. The lowest of the minima, which were recorded on somewhat irregular dates, ranged from 26° to 31° in Scotland, from 26° to 27° in Ireland, and from 30° to 32° over England. In the Channel Islands the thermometer did not fall below 43°.

Rainfall was a little more than the mean in Scotland E. and England N.W., and just equalled it in England N.E., the Midland Counties, and Scotland W. In all other districts there was a deficit, and this amounted to half the average in England S.W., and a still larger proportion in the Channel Islands.

Bright Sunshine shows an increase in the "Grazing" and a decrease in most of the "Wheat-producing" districts. It has, however, been less than the mean in nearly all districts. The percentage of the possible duration ranged from 33 in Ireland N., and 24 in Scotland W. and Ireland S., to only 7 in England E. and S.

Barometer and Wind.—During the early days of the period a somewhat shallow depression moved east-north-eastwards over the Channel and south-east of England, causing moderate Easterly breezes over the whole Kingdom. As this system disappeared depressions began to skirt our extreme west and north-west coasts, and, although the centre in no case advanced directly over us, the wind blew freshly or strongly at times from between South and South-West. By the end of the week these disturbances had all moved away north-eastwards, the barometer had become highest in the west, and the wind had shifted to the Northward or North-Westward on all our coasts.

NOTE.—In consequence of the variable amount of sunshine recorded at the stations in Scotland N. and the only "Mean" available being for Stornoway, it is impossible to give any "Difference from the Mean" for this week.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 271 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	50	38	46·9	40·6	43·8	+ 2·6	18	4	5	0·98	0·00	*	*	*	*
	Stornoway	49	31	47·4	35·0	41·2	+ 0·2	15	28	6	1·10	+0·03	18·6	+ 9·8	35	+23
	Wick	50	32	47·0	36·0	41·5	+ 1·0	14	25	6	0·61	−0·07	*	*	*	*
	Lairg ℌ	48	26	43·7	33·1	38·4	− 0·5	5	32	6	0·53	−0·35	*	*	*	*
	Glencarron ℌ	48	30	44·3	34·6	39·5	− 0·2	6	28	4	1·16	−1·10	*	*	*	*
	Fort Augustus ℌ	49	30	45·5	35·4	40·5	+ 0·2	10	26	5	0·64	−0·36	4·4	?	8	?
	Fort William ℌ	49	33	45·9	38·0	42·0	+ 0·8	11	11	6	1·55	−0·26	4·9	?	9	?
1. SCOTLAND, E.	Nairn	52	26	44·7	31·1	37·9	− 2·1	8	40	6	0·25	−0·27	*	*	*	*
	Aberdeen	49	32	46·9	38·1	42·5	+ 1·7	20	11	6	1·47	+0·75	10·8	− 1·2	20	− 3
	Braemar ℌ	49	30	42·0	34·4	38·2	+ 1·0	0	27	6	0·50	−0·41	2·2†	? †	4†	?†
	Ochtertyre ℌ	48	29	46·6	35·3	41·0	+ 1·3	13	27	4	1·58	+0·56	*	*	*	*
	Leith	55	32	49·1	36·7	42·9	+ 0·9	29	15	5	0·56	+0·05	*	*	*	*
	Marchmont ℌ	52	31	46·9	36·4	41·7	+ 1·9	14	23	6	1·28	+0·47	11·8	?	21	?
2. ENGLAND, N.E.	Alnwick Castle	55	36	47·0	39·4	43·2	+ 2·0	19	7	5	1·21	+0·43	*	*	*	*
	Durham	53	34	47·9	38·7	43·3	+ 3·0	23	9	6	0·66	−0·04	13·9	+ 1·4	25	+ 3
	Shields	54	35	49·4	38·9	44·2	+ 2·2	28	9	5	0·48	−0·14	*	*	*	*
	Scarborough ℌ	54	30	49·9	39·0	44·5	+ 2·0	30	8	7	0·90	+0·21	*	*	*	*
	York	55	34	49·6	38·1	43·9	+ 2·7	30	11	6	0·40	−0·11	7·5	− 1·5	13	− 3
	Spurn Head	53	39	48·4	41·6	45·0	+ 2·1	23	1	5	0·41	−0·16	*	*	*	*
3. ENGLAND, E.	Hillington ℌ	56	31	49·8	38·5	44·2	+ 3·0	30	10	6	0·59	−0·06	2·4	− 8·0	4	−16
	Yarmouth	55	35	49·4	40·0	44·7	+ 1·9	27	6	5	0·29	−0·41	*	*	*	*
	Geldeston	55	33	50·5	40·4	45·5	+ 3·0	31	4	5	0·35	−0·30	3·4	−10·8	6	−18
	Cambridge	57	34	50·9	39·1	45·0	+ 3·5	33	8	5	0·42	−0·06	3·4	−10·9	6	−18
	Rothamsted	56	32	50·5	39·2	44·9	+ 3·7	32	8	4	0·38	−0·25	5·8	?	10	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	55	34	50·0	37·6	43·8	+ 2·6	31	12	6	0·74	+0·26	*	*	*	*
	Loughborough	55	38	50·7	41·3	46·0	+ 4·2	31	2	3	0·66	+0·15	*	*	*	*
	Stamford (Ketton Hall)	57	33	51·1	39·3	45·2	+ 3·6	34	8	5	1·08	?	*	*	*	*
	Cheadle ℌ	54	36	48·4	39·2	43·8	+ 3·6	24	8	5	0·68	−0·04	*	*	*	*
	Churchstoke ℌ	55	33	49·2	38·6	43·9	+ 2·7	28	10	5	0·57	−0·24	8·2	− 2·8	14	− 5
	Hereford ℌ	55	35	50·6	40·2	45·4	+ 2·8	31	5	3	0·24	−0·35	*	*	*	*
	Cirencester	55	32	49·4	38·7	44·1	+ 3·1	29	9	4	0·28	−0·43	7·3	− 9·6	12	− 8
	Oxford	56	36	51·0	41·6	46·3	+ 4·1	32	1	4	0·41	−0·13	8·4	− 3·6	14	− 7
5. ENGLAND, S.	London	57	35	52·1	41·3	46·7	+ 3·7	36	2	5	0·29	−0·23	3·1 †	− 4·9†	5†	− 8†
	Strathfield Turgiss ℌ	56	32	51·5	39·8	45·7	+ 3·7	35	6	5	0·30	−0·30	*	*	*	*
	Dungeness	56	38	52·7	43·9	48·3	+ 4·1	44	0	5	0·79	−0·01	*	*	*	*
	Hastings (St. Leonards)	56	38	51·3	43·3	47·3	+ 2·8	37	0	5	0·37	−0·41	3·9	−10·9	7	−18
	Southampton	56	37	51·7	42·8	47·3	+ 3·4	37	0	5	0·36	−0·34	6·5	− 5·6	11	− 9
	Hurst Castle	56	39	52·4	45·1	48·8	+ 3·8	48	0	4	0·25	−0·45	*	*	*	*
	Stowell ℌ	55	34	50·5	42·2	46·4	+ 3·9	31	0	4	0·28	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	50	34	46·9	35·9	41·4	− 0·5	14	25	5	1·38	−0·78	*	*	*	*
	Glasgow	51	36	46·5	39·1	42·8	+ 1·9	18	8	5	1·21	+0·33	6·5	+ 1·0	12	+ 2
	Ardrossan	52	36	48·7	39·7	44·2	+ 1·2	25	6	5	1·12	+0·22	*	*	*	*
	Glenlee ℌ	49	31	47·8	35·0	41·4	+ 1·4	16	29	5	2·07	+0·59	*	*	*	*
	Douglas (Isle of Man)	53	38	50·0	41·4	45·7	+ 1·9	28	2	5	0·96	−0·14	20·2	+ 6·7	35	+12
7. ENGLAND, N.W.	Newton Reigny	52	31	47·9	37·6	42·8	+ 2·0	24	12	6	1·10	+0·29	8·8	− 1·2	16	− 1
	Stonyhurst	53	37	48·7	41·1	44·9	+ 3·2	24	3	6	1·32	+0·24	6·1	− 3·9	11	− 6
	Blackpool ℌ	54	35	48·3	40·3	44·3	+ 1·9	23	5	5	0·61	−0·20	8·2	− 1·5	14	− 3
	Manchester	55	37	49·5	40·4	45·0	+ 3·5	28	4	6	0·76	−0·08	*	*	*	*
	Liverpool Obsy. (Bidston)	56	39	49·3	41·7	45·5	+ 2·4	26	1	5	0·89	+0·21	*	*	*	*
	Llandudno ℌ	59	41	50·4	42·4	46·4	+ 1·6	31	0	6	1·47	+0·67	7·0	− 2·9	12	− 5
	Holyhead	54	41	50·6	44·7	47·7	+ 1·8	40	0	6	1·43	+0·53	*	*	*	*
8. ENGLAND, S.W.	Llandovery	56	34	50·9	39·3	45·1	+ 2·3	33	8	7	0·92	−0·26	*	*	*	*
	Pembroke	55	43	52·0	46·4	49·2	+ 2·6	50	0	5	0·46	−0·48	11·8	− 1·7	19	− 3
	Arlington (N. Devon)	55	37	50·9	41·9	46·4	+ 3·0	31	0	7	0·57	−0·91	*	*	*	*
	Cullompton ℌ	57	31	52·5	42·0	47·3	+ 3·6	37	0	5	0·31	−0·53	9·4	− 0·8	16	− 1
	Falmouth	57	41	52·3	44·6	48·5	+ 1·4	46	0	6	0·74	−0·54	10·3	− 5·0	17	− 8
	Plymouth	55	39	52·3	44·7	48·5	+ 2·6	46	0	4	0·34	−0·46	8·7	− 4·0	14	− 7
	Prawle Point	54	38	51·9	44·6	48·3	+ 2·3	44	0	4	0·30	−0·47	*	*	*	*
9. IRELAND, N.	Malin Head	49	39	47·3	41·1	44·2	+ 1·4	19	3	7	0·64	?	*	*	*	*
	Londonderry	49	30	46·4	37·4	41·9	− 0·6	12	19	7	0·85	−0·15	*	*	*	*
	Mullaghmore	51	35	48·3	40·0	44·2	− 0·8	24	6	6	0·93	−0·12	*	*	*	*
	Belmullet	50	37	48·0	40·7	44·4	− 1·8	22	4	6	0·89	?	*	*	*	*
	Markree Castle	51	26	47·0	34·1	40·6	− 1·6	14	32	6	1·10	+0·30	18·0	+ 6·0	32	+11
	Brookeborough	52	30	47·0	34·5	40·8	− 0·1	14	31	4	0·56	−0·45	*	*	*	*
	Armagh	56	31	48·9	36·0	42·5	+ 1·2	29	17	6	0·25	−0·44	19·1	+ 6·2	34	+11
	Donaghadee	54	31	49·4	39·0	44·2	+ 0·9	28	8	6	1·07	+0·32	*	*	*	*
	Edgeworthstown	52	30	47·0	32·7	39·9	− 2·1	14	36	6	0·37	−0·48	*	*	*	*
10. IRELAND, S.	Dublin	58	36	49·2	39·7	44·5	+ 0·1	27	6	4	0·39	−0·20	14·5	− 1·5	25	− 2
	Parsonstown	56	28	48·1	36·1	42·1	− 0·7	25	17	5	0·21	−0·46	12·6	− 1·5	22	− 2
	Kilkenny	55	31	49·6	37·3	43·5	− 0·8	30	13	3	0·27	−0·35	*	*	*	*
	Waterford	55	33	50·5	39·4	45·0	− 0·7	32	7	3	0·63	−0·27	*	*	*	*
	Roche's Point	54	35	51·0	39·9	45·5	− 0·7	33	6	4	0·67	−0·43	*	*	*	*
	Valencia	52	36	50·7	41·3	46·0	− 1·3	31	2	6	0·59	−0·66	14·5	+ 1·5	25	+ 3
	Killarney	55	27	49·4	35·9	42·7	− 2·4	31	17	6	0·62	?	*	*	*	*
	Foynes	53	32	48·4	38·8	43·6	− 0·7	25	9	5	0·42	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	57	45	52·6	47·9	50·3	+ 1·3	58	0	4	0·27	−0·63	*	*	*	*
	Jersey	59	43	54·7	47·4	51·1	+ 3·9	64	0	7	0·52	−0·47	8·0	− 6·0	13	−10

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

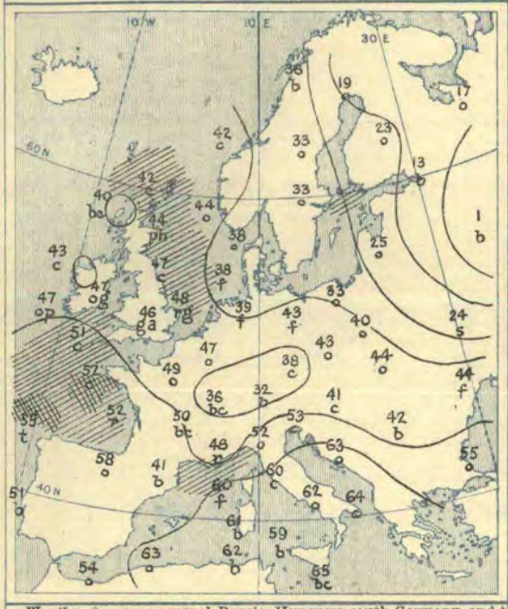
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 15th November.

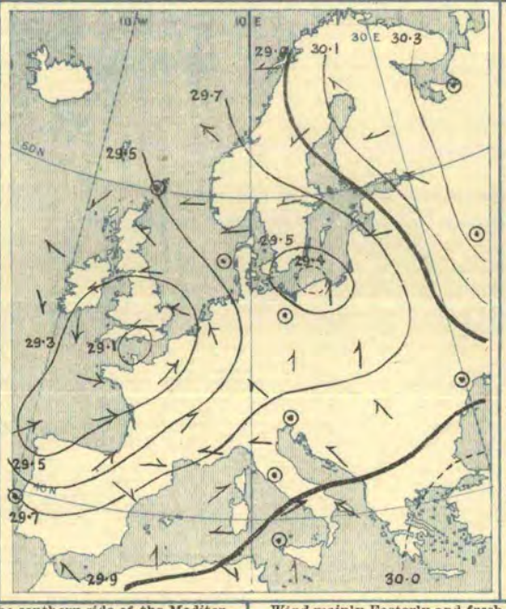
Temperature and Weather. 8 a.m.



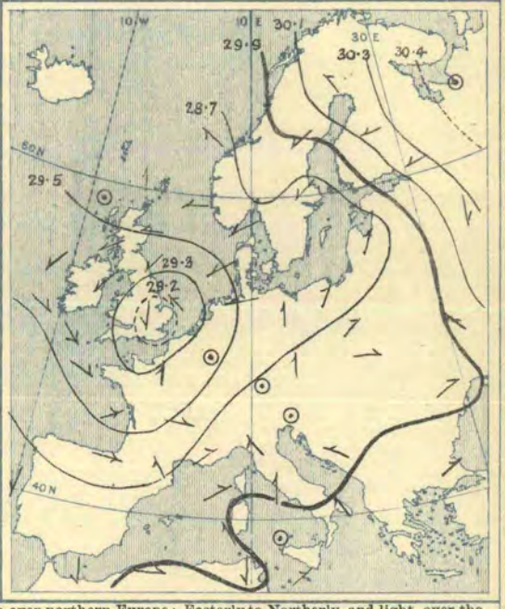
Weather fine over central Russia, Hungary, south Germany, and the southern side of the Mediterranean, foggy over southern Russia and Holstein, unsettled over Europe as a whole. Much cloud in most regions, rain at several stations. Rainy, changeable weather later over the greater part of the United Kingdom and France, and especially at Dungeness; thunder at Jersey and in the eastern parts of France; general condition very unpleasant and close.

Temperature not changing much. Morning readings above 60° over the southern half of the Mediterranean, and above 50° in the south and west of France and at Scilly; rather lower over England, the north of France, and in Austria, much lower elsewhere. Lowest of all, (1) 1° Fahr. at Moscow, 13° at St. Petersburg, 17° both at Kharkov and Archangel, 18° at Uleaborg, 25° at Riga; (2) 32° at Parsonstown, 35° at Nairn. Rising later to 70° and more over Algeria and the southern parts of Italy, to 60° and more in the south of France, to 50° and more over the north of France and south of England, and to 50° even at Wick.

Barometer and Wind. 8 a.m.



6 p.m.

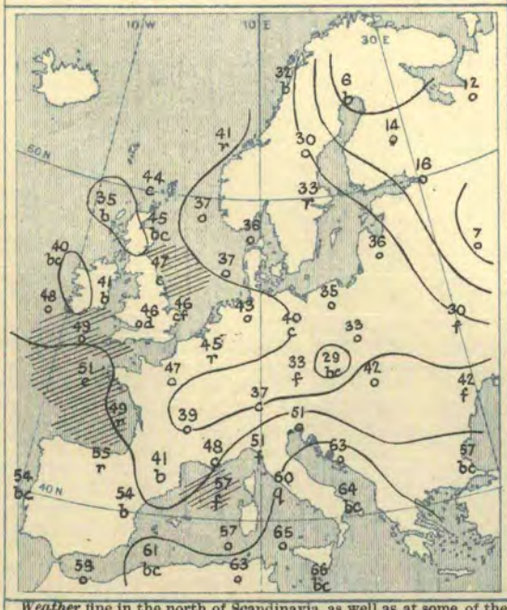


Wind mainly Easterly and fresh over northern Europe; Easterly to Northerly, and light, over the British Islands; North-Westerly to South-Westerly over France, and Westerly to Southerly and South-Easterly in north Germany; variable, but chiefly Westerly, over the Mediterranean and southern Europe; South-Easterly over the Adriatic. Becoming Northerly to North-Westerly over England later and North-Westerly in the Channel, but not increasing. Blowing a strong gale from East in the Gulf of Finland, while strong South-Westerly winds prevailed over the Baltic Provinces.

Barometer highest, 30·3 ins. and more to 29·9 ins. in a large anticyclone over Russia; 30·0 ins. and more in another over Asia Minor. Lowest, 29·4 ins. and less in a depression over the Baltic; 29·1 ins. and less in another over the English Channel; and 29·3 ins. and less in another (secondary) over the Bay of Biscay, not far from Corunna. The Channel depression moving north-eastwards to the mouth of the Thames later and barometer rising a little generally; the Baltic depression moving slightly to the northward, and (owing to a rise of the barometer over northern Russia) gradients for Easterly winds becoming steep over Finland and western Russia.

Monday, 16th November.

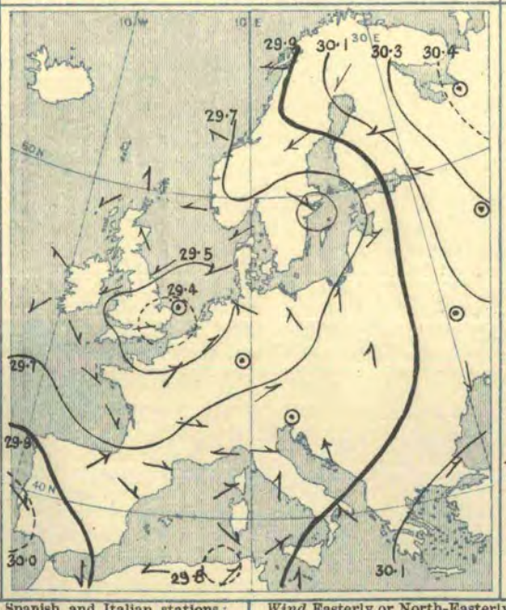
Temperature and Weather. 8 a.m.



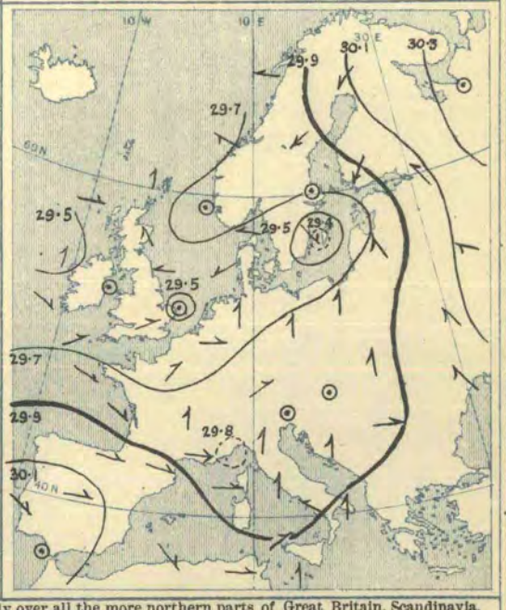
Weather fine in the north of Scandinavia, as well as at some of the Spanish and Italian stations; fine also in the west and north of our Islands generally, but with fog in many places. Dull elsewhere, with fog in many parts of central and eastern Europe, rain over England, the Netherlands, the south-west of France, and the southern parts of Scandinavia, and snow at Helsingfors. Slight improvement over England later, but rain still falling in Ireland and the west of Scotland, and partial showers over many of the northern, central, and eastern parts of Europe.

Temperature highest, 66° at Malta, 65° at Palermo, 64° at Brindisi, and 63° at Lesina and La Calle; above 55° at most of the Adriatic and Mediterranean stations, and above 50° in the north-west of France. Lowest, 6° at Haparanda, 7° at Moscow, 8° at Uleaborg, 12° at Archangel, 14° at Kuopio, and 16° at St. Petersburg; below the freezing point over the greater part of Russia and a large portion of Scandinavia, and low as 35° at Stornoway and Nairn. Rising during day to 50° or a little above over the southern parts of the United Kingdom; exceeding 60° in Spain and the south of France, and exceeding 70° over the south of Italy and some parts of Algeria.

Barometer and Wind. 8 a.m.



6 p.m.



Wind Easterly or North-Easterly over all the more northern parts of Great Britain, Scandinavia, Denmark, and northern Russia; South-Easterly in the north of Ireland. Light or moderate from West or North-West over the south of England, the west and south of France, and the greater part of Spain. Southerly or South-Westerly over Belgium and central France, South-Easterly over north Germany, and also in Italy, light and variable over Austria and the south of Russia. Subsequently shifting to the Southward in the north and north-west of our Islands, and backing to North-East in the south of Finland, but continuing Westerly over France and Spain.

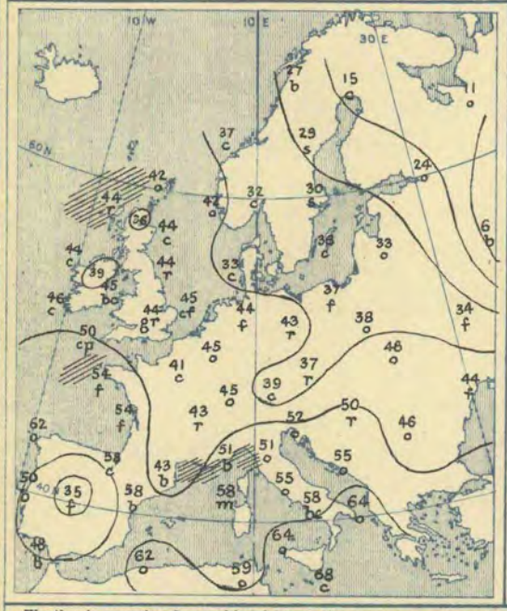
Barometer highest, 30·4 ins. and upwards in an anticyclone lying over northern Russia; 30·0 ins. and upwards in another system lying to the south-westward of the Spanish Peninsula. Lowest, 29·4 ins. and less in a shallow depression lying over the central and eastern parts of England; 29·5 ins. and less in another disturbance to the southward of Stockholm. Depression over England filling up slowly during day, but that over the Baltic growing deeper; new disturbance of little intensity approaching the west of Ireland in evening.

Judd & Cº Ltd Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

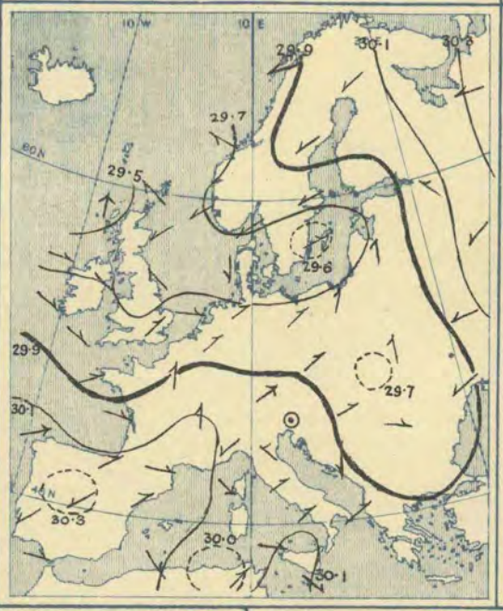
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 17th November.

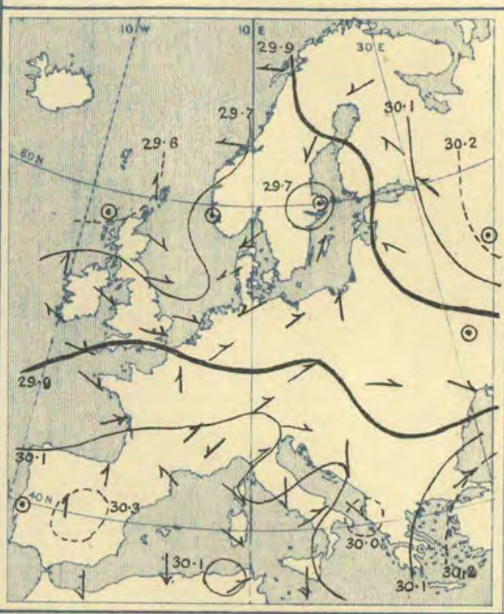
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the extreme south-west of Europe, some parts of England and Ireland, over central Russia, and at Bodö; foggy over southern Russia and at some stations in western Europe; cloudy, more or less, and unsettled in most places, with rain in Austria, Germany, and many parts of France and the British Isles, snow at Hernösand. Rain later in nearly all parts of western and several parts of central Europe, snow over Sweden; amounts reported not large.

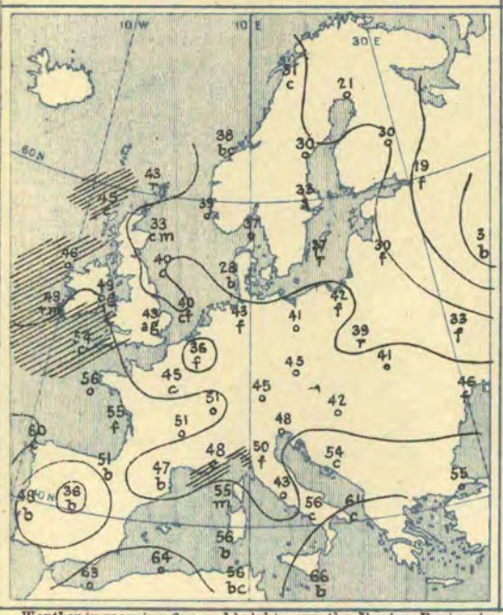
Temperature changing irregularly; morning readings exceeding 60° in southern Italy and Algeria only, exceeding 50° over the greater part of southern Europe and the west of France, but below 50° over the British Isles, Germany, and Austria, and as low as (1) 6° Fahr. at Moscow, 11° at Archangel, 15° at Haparanda, 24° at St. Petersburg, and 29° at Kharkov and Hernösand; (2) 36° at Nairn, 38° at Parsonstown. Rising later to between 50° and 54° over the southern half of England, to between 60° and 68° in the south-west of France, and to 70° or more over Corsica, Malta, and Algeria.

Wind very variable; North-Easterly to Easterly over northern Europe, Southerly in Scotland, Southerly to Westerly over England and Ireland, South-Westerly over Germany, and Southerly to Westerly in France. Becoming variable and light over the United Kingdom later, and backing to South-East and South in the west of Ireland; drawing more into South over the Baltic; not much change elsewhere.

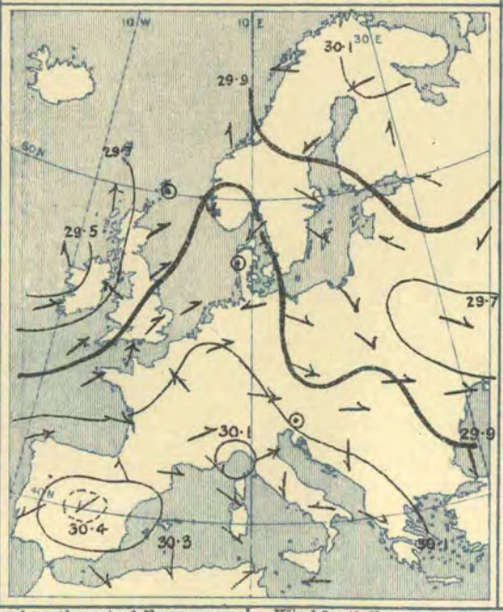
Barometer highest, 30·3 ins. and more to 30·0 ins. in a large anticyclone lying over Russia, and in another such system over Spain and the southern half of France. Lowest, 29·5 ins. and less off the north-west of Scotland; below 29·7 ins. over the North Sea, Denmark, and south of Sweden, and in a shallow system over Austria; and below 30·0 ins. in a third depression lying over Algeria. Rising over the British Islands, the Bay of Biscay, and Spain during day, but beginning to fall again in the west of Ireland towards night; giving way over southern Russia also.

Wednesday, 18th November.

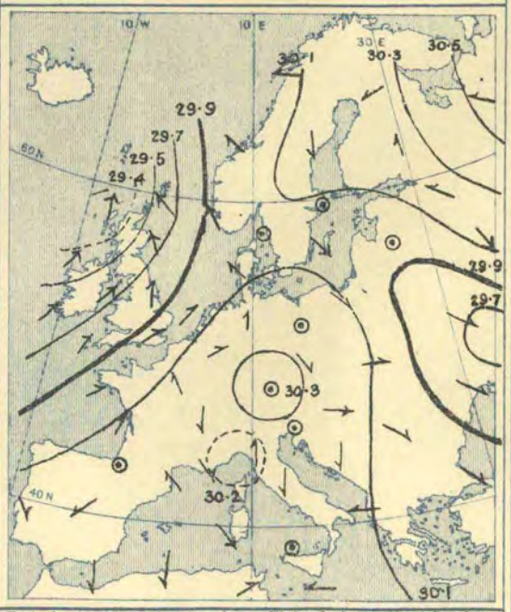
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the Iberian Peninsula and south-west of France, over central Russia, Norway, and Scotland; very dull and changeable elsewhere, with rain in many parts of England, Ireland, Brittany, and Poland, fog in several localities, especially in the west and south of Russia. Some rain later in all parts of our Islands, many parts of France and Sweden, and in the southern parts of Russia, in Austria-Hungary, and the north of Italy; fall slight, except over Scotland and the north of Ireland.

Temperature risen over Spain, France, and Sweden, fallen somewhat over our Islands and central and eastern Europe, but changing frequently and fitfully. Morning readings 60° or more at several of the Mediterranean stations and in the north of Spain, above 50° over the south and west of France and on several parts of our own western coasts, much lower elsewhere; below 40° over Scotland. Lowest of all, (1) 3° Fahr. at Moscow, 19° at St. Petersburg and Uleaborg, 30° at Haparanda, Kuopio, and Riga, 33° at Kiev; (2) 30° at Nairn, 33° at Aberdeen. Rising later to between 63° and 70° on the Mediterranean coasts and in the south-west of France, and to between 53° and 57° over Ireland and England. Air very damp and "muggy" over England.

Wind South-Easterly to North-Easterly over the Baltic Provinces, Finland, the north of Sweden, and Lapland; Southerly (South-South-West to South-South-East) over our Islands, South-Westerly over the Bay of Biscay, Westerly over central and south-eastern Europe, variable over the Mediterranean. Southerly wind becoming strong and gusty in our Islands later and spreading to France and the west of Norway; North-Westerly winds setting in over Germany, Austria, Poland, and western Russia.

Barometer highest, (1) 30·4 ins. and more to 30·2 ins. over the Spanish Peninsula, Algeria, and south-west of France; (2) 30·1 ins. to 29·9 ins. over Finland, Lapland, and the northern parts of Sweden and Norway. Lowest, (1) 29·5 ins. and less in a large but not deep depression over the west of Ireland and neighbouring parts of Atlantic; (2) 29·7 ins. and less in another disturbance over the southern half of Russia. Depression off our western coasts moving north-eastwards later and barometer rising somewhat over Ireland and England. Separate fall occurring over Algeria also.

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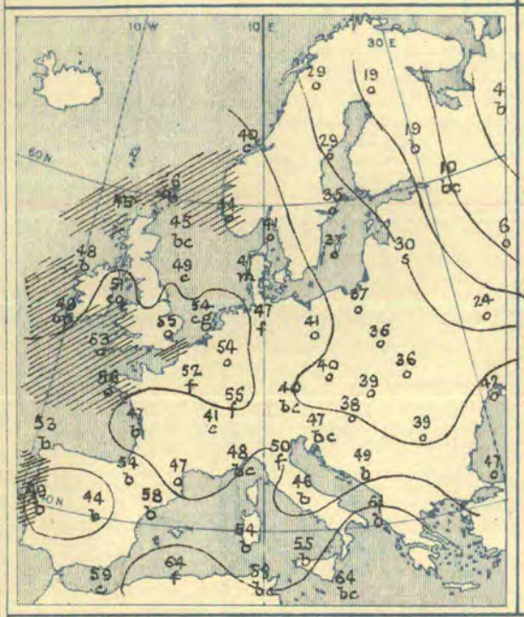
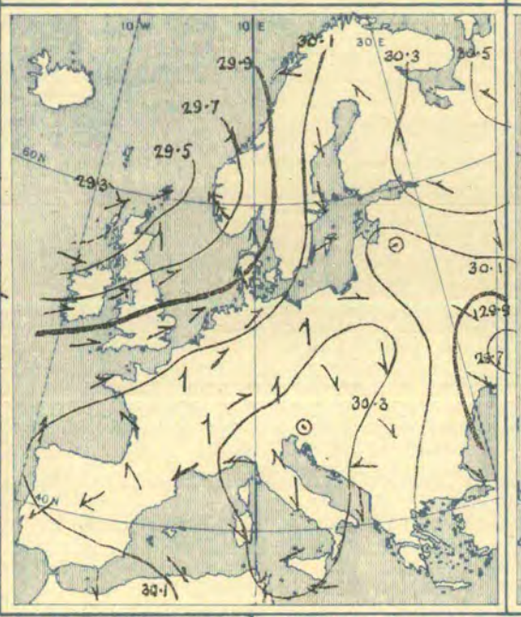
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 19th November.

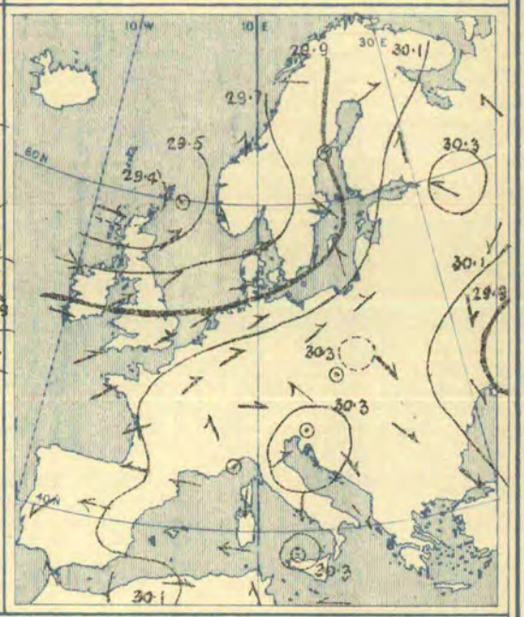
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright (1) over the Mediterranean, Spain, the west of France, and the western parts of our Islands; (2) over northern Russia. Cloudy or overcast and unsettled elsewhere, with rain in several parts of Great Britain, at Copenhagen, and at Memel, snow at Riga and Ulcaborg. Rain falling later over Scandinavia and the north and north-west of our Islands, and very small quantities in the south. Some rain on the shores of the Black Sea also. Fine weather prevailing over France and Germany and spreading to England subsequently.

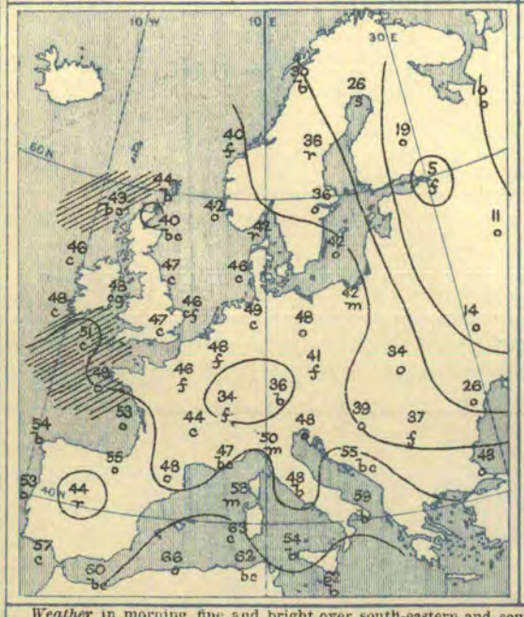
Temperature risen over France, the British Isles, and west of Norway, fallen over south-western, central, and northern Europe. Still above 60° at some stations on the south-eastern and southern sides of the Mediterranean, and above 50° in the west and north of France and the west and south of England; lower elsewhere. Lowest, −4° Fahr. at Archangel, +6° at Moscow, 10° at St. Petersburg, and below 32° at the stations in Russia, Finland, Lapland, and the north of Sweden generally, but not below 40° at any of our own stations. Rising later to 70° and more over Algeria and southern Italy, to 60° and more over Spain and the greater part of France, to 59° at Jersey, and to between 50° and 55° even on our north-eastern coasts.

Wind (1) very light and anticyclonic (mainly South-Easterly) over northern Russia, and anticyclonic over central and southern Europe also; (2) strong South-Westerly to Southerly at our western and northern stations, moderate on our east coasts, moderate Southerly in the Netherlands, South-Easterly in Norway (a gale at Skudesnaes); (3) Northerly over Sweden, the Baltic Provinces, Poland, Hungary, and southern Russia. Veering towards West over Ireland and England later, increasing from South-East over Finland, and from North over south-western Russia.

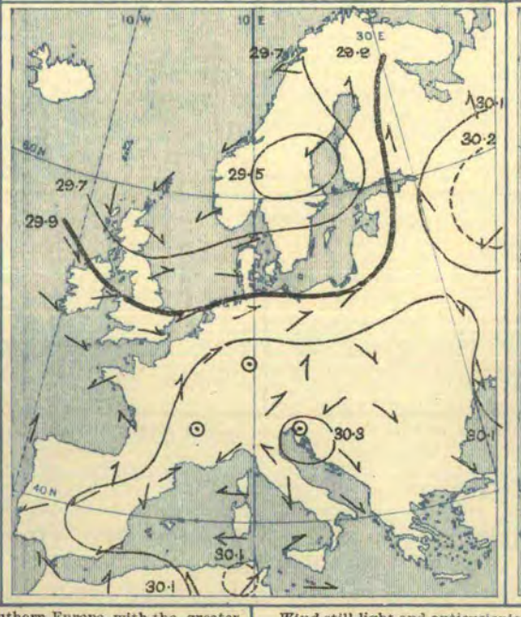
Barometer, (1) 30·5 ins. and more to 30·2 ins. over northern Russia and the Gulfs of Finland and Bothnia; (2) 30·3 ins. and more in an anticyclone over Austria, Switzerland, Italy, and adjacent parts of the Mediterranean. Lowest, (1) 29·4 ins. and less off the north-western coasts of our Islands; (2) 29·7 ins. and less over the south-east of Russia. Former low-pressure area moving north-eastwards later in day, and barometer rising in the west and south of our Islands, falling over Spain and Portugal. Russian depression moving eastwards and filling up; barometer rising over the Black Sea and south-eastern Europe.

Friday, 20th November.

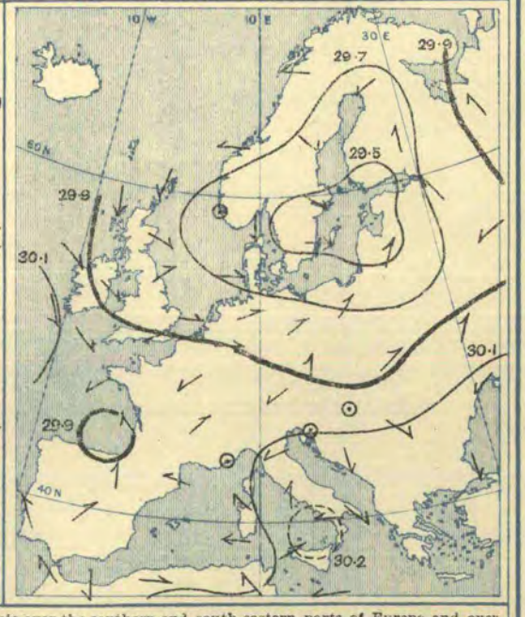
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright over south-eastern and southern Europe, with the greater part of the Mediterranean, and less unsettled than of late over the United Kingdom and Norway; very unsettled over Sweden and the Gulf of Bothnia, with rain and snow in places; rainy at Memel and Swinemünde, fog very prevalent in the north of France. Slight rain later in the west and north of our Islands, and local showers in Norway. Lunar halos over England; heavy rains in the south of France, and also over the south of Finland, and a considerable fall at Wiesbaden.

Temperature giving way over the British Isles and France, rising over Scandinavia and the Baltic. Morning readings below 60° all over Europe, below 50° except in the extreme south-western and southern countries, and below 40° over the northern and eastern countries. Lowest of all, 5° Fahr. at St. Petersburg, 10° at Archangel, 11° at Moscow, 14° at Kiev, and below 32° over Russia generally. Not exceeding 55° at any of our own stations during the day, but slightly exceeding 60° in the south-west and south of France and in northern Italy; touching 68° over southern Italy and exceeding 70° over Algeria.

Wind still light and anticyclonic over the southern and south-eastern parts of Europe and over the northern half of Russia. Moderate to strong, and cyclonic, elsewhere—chiefly North-Westerly on our western coasts, Westerly over England, the Channel, the Netherlands, and north Germany, South-Westerly and Southerly over the Baltic (a moderate gale at Hangö and Helsingfors), Easterly to North-Easterly over the northern half of Scandinavia. Becoming more Northerly over our Islands, the Baltic, and south of Sweden later, and decreasing in force.

Barometer highest, (1) 30·3 ins. and more over all the south-eastern parts of Europe and the eastern parts of the Mediterranean; (2) 30·2 ins. and more to 30·1 ins. over northern Russia. Lowest, (1) 29·5 ins. and less in a complex depression over Scandinavia and Scotland; (2) 30·0 ins. and less in a shallow system dispersing over southern Russia, and in another system over the Bay of Biscay, near Rochefort. Latter disturbance growing rather deeper later; barometer rising on all our northern and north-western coasts. New anticyclone approaching the west of Ireland but that over south-eastern Europe decreasing in intensity.

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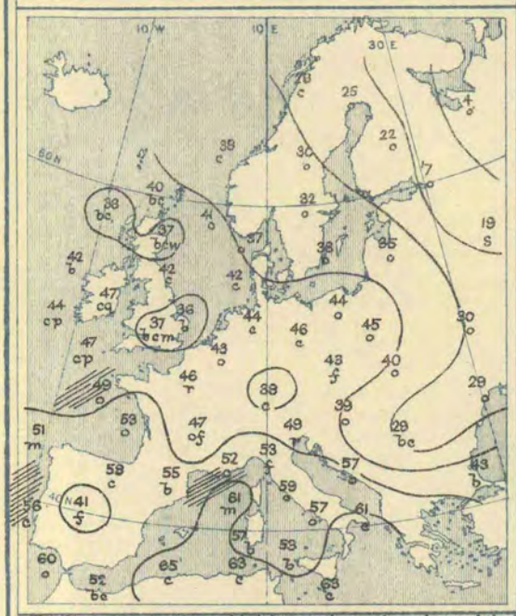
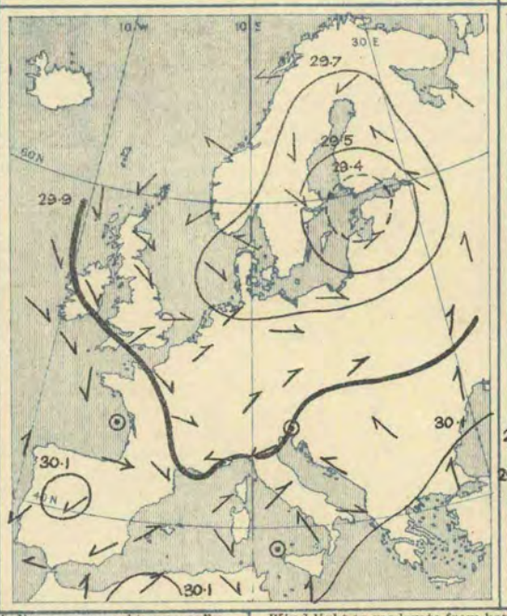
Saturday, 21st November.

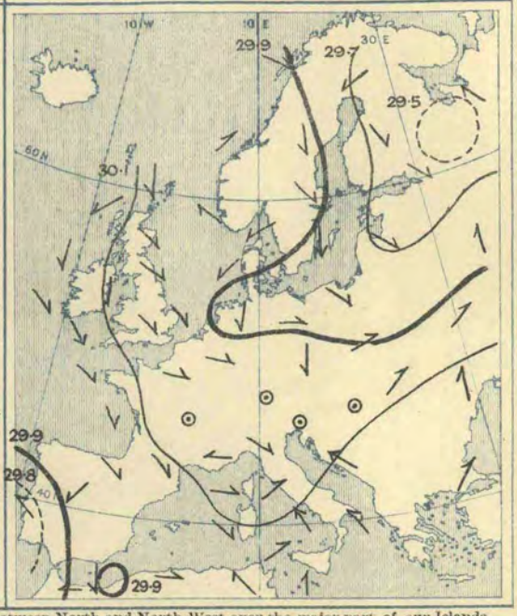
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the southern shores of the Mediterranean, and temporarily fine in many parts of the British Islands; cloudy or overcast and unsettled over the Continent generally, with rain in several parts of France and Germany, snow at Moscow; rain showers at some of our western stations also. Some rain later at most stations over the United Kingdom, France, Germany, and the Baltic Provinces, and north of Italy, snow in other parts of Russia. Gloomy, foggy conditions at times in many localities.

Temperature showing a further decrease over the British Islands and north-western Europe, but an increase over southern and eastern Europe and over Finland. Morning readings 60° and more over Algeria and the south of Italy, and exceeding 50° over southern and south-western Europe only, above 40° over central Europe, but below 40° over Norway, Scotland, and central Ireland, and much lower over Russia. Lowest, 4° Fahr. at Archangel, 17° at St. Petersburg, 19° at Moscow, 20° at Haparanda, 23° at Kharkov. Exceeding 50° in the extreme south-west and south-east of our Islands later, exceeding 60° in the extreme south of France and over northern Italy; touching 70° in the south of Italy and 70° to 79° in various parts of Algeria.

Wind light to moderate from between North and North-West over the major part of our Islands, France, and the North Sea, Westerly over Germany, South-Westerly over Austria and Poland, Southerly over Russia, South-Easterly over Finland, variable from Eastward over northern Scandinavia. Very variable over the Mediterranean. More Northerly in our Islands later and shifting to that quarter over Sweden Finland, and the Baltic Provinces, but becoming very light in force.

Barometer highest, 30·1 ins. and more to 30·0 ins. over the Iberian Peninsula, and exceeding 30·0 ins. over the south-west of Ireland; 30·1 ins. and more to 30·0 ins. over the Black Sea and south-eastern Europe generally. Lowest, 29·4 ins. and less in a depression over the Baltic and Gulf of Finland, and below 29·9 ins. over the east of England and eastern half of France. Rising slowly in Ireland, Scotland, and Norway later; Baltic depression moving north-eastwards quickly and beginning to fill up.

GENERAL NOTES.

The principle features in the distribution of pressure during this week were (1) high readings over northern and north-eastern Europe, with complex low-pressure systems over the Baltic, France, the British Islands, and the neighbouring parts of the Atlantic. The result was a continuance for several days of unsettled wet weather in most places, accompanied by variable winds and high temperatures for the time of year. Gradually, however, the northern high-pressure system gave way, the low pressures in the west took up a more northerly position, and, as the barometer rose over the British Islands and France, Westerly to Northerly breezes began to spread over western Europe, accompanied by colder weather drier air and some fog. These conditions were maintained at the close of the week.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 272.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	6·0	?	11	?	NEWQUAY	6·1	?	10	?
OSWALDKIRK (Yorkshire)	8·0	?	14	?	TORQUAY	9·4 *	?	15 *	?
WORKSOP	6·8	− 4·0	12	− 7	ARLEY COTTAGE (County Cavan)	19·1	?	34	?
THURCASTON (Leicestershire)	7·7	− 2·3	13	− 6	GUERNSEY	3·4 *	?	6 *	?
EASTBOURNE	3·7	?	6	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

WEEKLY WEATHER REPORT, 1891.

The following Appendices, &c., have been published:—

APPENDIX I.—Quarterly Summaries of Rainfall and Mean Temperature—January to March, April to June, July to September. *Price* 4d. *each.*

SUPPLEMENT.—Monthly Summaries of Observations for January and February. *Price* 6d. *each.*

The Monthly Summaries for March and April are in the Press, and those for the other months will appear shortly.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 47.] *Third Series.* WEEK ENDING SATURDAY, 28TH NOVEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 278.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	49	20	41·3	29·7	35·6	4 below.	0	−15	45	+24	2037	+192	749	+121
	1. SCOTLAND, EAST -	50	16	40·3	28·2	34·3	5 below.	0	−16	54	+28	2252	− 78	840	+169
	2. ENGLAND, N.E. - -	52	26	41·1	31·6	36·4	4 below.	0	−18	39	+21	2391	−106	675	+116
	3. ENGLAND, EAST -	46	26	41·3	31·1	36·2	4 below.	0	−20	41	+23	2810	− 80	763	+125
	4. MIDLAND COUNTIES	46	23	41·7	30·3	36·0	4 below.	0	−18	42	+21	2711*	−116	761	+117
	5. ENGLAND, SOUTH -	49	25	44·3	31·9	38·1	4 below.	6	−21	37	+23	3036	−118	615	+150
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	50	23	42·6	30·4	36·5	5 below.	2	−17	41	+28	2487	+ 75	552	+ 76
	7. ENGLAND, N.W. -	50	21	42·3	32·8	37·6	4 below.	1	−20	33	+31	2640*	+ 16	505	+ 49
	8. ENGLAND, S.W. -	53	22	46·8	33·5	40·2	4 below.	13	−19	33	+26	2807	−152	472	+130
	9. IRELAND, NORTH -	51	25	43·6	33·8	38·7	4 below.	4	−18	30	+15	2578	+ 3	488	+ 74
	10. IRELAND, SOUTH -	53	25	46·2	32·2	39·2	5 below.	12	−20	37	+26	2868	− 64	390*	+ 74
	— CHANNEL ISLANDS -	53	35	49·7	40·3	45·0	2 below.	28	−19	5	+ 3	3333	− 56	167	+ 44

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 278.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	4	8	5 less.	215	− 3	46·0	+ 2·5	7	?	14	?	1129	+ 3	27	0
	1. SCOTLAND, EAST -	3	3	5 less.	165	−15	27·0	− 2·0	14	+ 5	27	+ 7	1265	− 39	30	− 1
	2. ENGLAND, N.E. - -	4	4	3 less.	162	− 5	22·0	− 2·1	10	0	18	0	1186	− 15	29	0
	3. ENGLAND, EAST -	5	4	2 less.	174	+10	23·8	+ 0·1	11	− 4	19	− 4	1373	− 91	33	− 3
	4. MIDLAND COUNTIES-	4	5	1 less.	171	+ 9	27·1	+ 0·7	15	+ 5	27	+ 9	1294	− 13	31	− 1
	5. ENGLAND, SOUTH -	4	5	2 less.	166	+ 9	29·7	+ 4·4	21	+11	36	+20	1490	+ 73	36	+ 2
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	5	11	2 less.	179	−10	40·9*	− 3·9	11	+ 2	20	+ 5	1330	+ 44	32	+ 1
	7. ENGLAND, N.W. - -	5	9	0 (average)	163*	−12	32·2*	+ 0·4	11	+ 2	21	+ 3	1211*	− 63	29	− 2
	8. ENGLAND, S.W. - -	5	7	3 less.	175	− 7	38·7	+ 2·1	25	+11	43	+21	1546	+ 16	37	0
	9. IRELAND, NORTH -	7	8	1 less.	198	− 6	30·2	− 3·0	11	0	20	0	1297	+107	31	+ 2
	10. IRELAND, SOUTH -	5	9	0 (average)	179	− 8	34·3	− 0·8	25	+12	44	+17	1424	+ 40	34	0
	— CHANNEL ISLANDS -	5	8	2 less.	175	−19	32·1	+ 2·1	27	+15	44	+22	1923	+126	47	+ 3

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather during this period varied considerably in different parts of the Kingdom, but was, as a whole, rather fairer than that experienced previously, especially over England and the east of Scotland.

Temperature was below the mean in all districts, the deficit varying from 2° in the Channel Islands, to 4° in most other districts, and to 5° in the east and west of Scotland and the south of Ireland. The highest of the maxima, which were registered in most instances on the 28th, ranged from 53° in the Channel Islands, England S.W., and Ireland S., to 46° in England N.E. and the Midland Counties. The lowest of the minima were recorded during the middle part of the period, when the shaded thermometer fell to 16° in Scotland E. (at Braemar) and to between 20° and 25° in most other districts, but to only 35° in the Channel Islands.

Rainfall just equalled the normal in England N.W., and Ireland S. In all other districts, however, there was a deficit, and in the north and east of Scotland this deficit amounted to five-tenths of an inch.

Bright Sunshine shows a considerable increase on that recorded last week, and has exceeded the mean for the time of year in nearly all districts. The percentage of the possible duration ranged from 14 in Scotland N. and 18 or 19 over the north-eastern and eastern parts of England, to 36 in England S., 43 in England S.W., and 44 in the Channel Islands and Ireland S.

Barometer and Wind.—At the commencement of the week pressure was highest in the west and lowest in the east, and the winds light from between North and North-West. This condition, however, soon changed, and a series of rather shallow disturbances skirted our extreme western and north-western coasts, occasioning in those regions moderate breezes from the South-Westward, which subsequently extended to all parts of the country. On the evening of the 27th a depression of considerable depth and importance appeared off the west of Ireland, and during the remainder of the period travelled north-north-eastwards, producing strong winds and fresh gales from the Southward in all our more western districts and increasing winds from the same quarter in the east.

NOTE.—In consequence of the variable amount of sunshine recorded at the stations in Scotland N. and the only "Mean" available being for Stornoway, it is impossible to give any "Difference from the Mean" for this week.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 277 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	46	35	44·3	36·6	40·5	0·0	6	21	7	1·35	+0·38	*	*	*	*
	Stornoway	49	28	43·4	30·9	37·2	− 3·0	4	40	4	0·89	−0·23	15·2	+ 8·1	30	+20
	Wick	47	28	42·1	30·6	36·4	− 3·1	0	40	5	0·27	−0·41	*	*	*	*
	Lairg Ⓢ	48	20	40·6	25·5	33·1	− 4·7	0	62	2	0·18	−0·70	*	*	*	*
	Glencarron Ⓢ	48	24	39·9	27·0	33·5	− 5·4	0	60	3	1·16	−1·04	*	*	*	*
	Fort Augustus Ⓢ	48	25	39·8	27·9	33·9	− 5·5	0	57	4	0·43	−0·60	3·7	?	7	?
	Fort William Ⓢ	49	24	39·2	29·6	34·4	− 6·0	0	53	5	1·29	−0·56	3·2	?	6	?
1. SCOTLAND, E.	Nairn	47	23	42·1	27·0	34·6	− 4·4	0	53	1	0·04	−0·48	*	*	*	*
	Aberdeen	46	27	41·1	31·7	36·4	− 3·5	0	39	3	0·33	−0·37	14·7	+ 4·4	29	+ 7
	Braemar Ⓢ	40	16	36·4	21·9	29·2	− 6·8	0	90	3	0·53	−0·35	14·0†	? †	27†	?†
	Ochtertyre Ⓢ	50	24	40·4	28·7	34·6	− 3·9	0	52	5	0·35	−0·45	*	*	*	*
	Leith	47	26	41·3	29·7	35·5	− 5·4	0	46	0	—	−0·50	*	*	*	*
	Marchmont Ⓢ	46	25	40·7	30·4	35·6	− 3·1	0	45	3	0·12	−0·68	19·0	?	37	?
2. ENGLAND, N.E.	Alnwick Castle	52	27	43·0	31·0	37·0	− 3·0	3	39	2	0·29	−0·46	*	*	*	*
	Durham	43	26	40·3	30·5	35·4	− 3·8	0	45	3	0·22	−0·50	11·7	+ 0·4	22	+ 1
	Shields	45	28	41·3	31·1	36·2	− 4·2	0	41	4	0·25	−0·37	*	*	*	*
	Scarborough 𝔐	45	29	40·4	32·9	36·7	− 4·5	0	37	4	0·49	−0·19	*	*	*	*
	York	43	27	40·1	30·1	35·1	− 4·8	0	48	4	0·62	+0·10	7·0	− 0·4	13	− 1
	Spurn Head	46	30	41·6	34·1	37·9	− 3·8	0	29	5	0·50	−0·07	*	*	*	*
3. ENGLAND, E.	Hillington 𝔐	45	26	41·2	30·5	35·9	− 3·9	0	43	5	0·57	−0·05	10·0	− 0·5	18	0
	Yarmouth	43	28	40·9	31·9	36·4	− 5·1	0	39	6	0·40	−0·25	*	*	*	*
	Geldeston	43	27	41·0	30·8	35·9	− 5·1	0	43	5	0·26	−0·37	9·4	− 3·6	16	− 7
	Cambridge	46	27	42·3	31·0	36·7	− 3·3	1	39	4	0·47	+0·01	11·8	− 0·8	21	− 1
	Rothamsted	45	26	41·3	31·3	36·3	− 3·7	0	40	6	0·35	−0·27	11·4	?	20	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	43	26	39·4	29·4	34·4	− 5·5	0	53	3	0·33	−0·12	*	*	*	*
	Loughborough	46	27	42·4	30·4	36·4	− 3·8	1	41	6	0·40	−0·10	*	*	*	*
	Stamford (Ketton Hall)	45	25	42·7	30·6	36·7	− 3·5	2	41	5	0·64	?	*	*	*	*
	Cheadle 𝔐	43	27	40·4	30·4	35·4	− 3·6	0	46	4	0·59	−0·13	*	*	*	*
	Churchstoke 𝔐	46	24	42·3	27·9	35·1	− 4·9	1	50	3	0·42	−0·33	14·6	+ 4·9	28	+ 9
	Hereford 𝔐	46	23	42·4	29·9	36·2	− 5·0	1	43	3	0·21	−0·36	*	*	*	*
	Cirencester	45	27	41·9	30·7	36·3	− 3·5	0	40	4	0·63	−0·07	16·3	+ 6·0	29	+11
	Oxford	46	31	42·0	32·9	37·5	− 3·3	0	32	3	0·61	+0·09	16·7	+ 6·7	29	+11
5. ENGLAND, S.	London	47	30	43·9	32·6	38·3	− 3·4	5	35	4	0·26	−0·26	8·4†	+ 1·8†	14†	+ 3†
	Strathfield Turgiss 𝔐	46	28	42·5	30·5	36·5	− 4·0	1	41	4	0·41	−0·18	*	*	*	*
	Dungeness	49	26	45·4	31·4	38·4	− 4·6	10	39	3	0·14	−0·59	*	*	*	*
	Hastings (St. Leonards)	48	31	44·3	34·1	39·2	− 3·8	6	29	3	0·43	−0·32	28·4	+15·2	49	+26
	Southampton	48	28	45·0	31·1	38·1	− 4·5	8	41	4	0·62	−0·06	21·2	+10·4	37	+18
	Hurst Castle	49	31	46·3	34·1	40·2	− 3·7	12	31	4	0·99	+0·31	*	*	*	*
	Stowell 𝔐	49	25	42·8	29·7	36·3	− 4·9	2	44	3	0·66	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	47	25	41·1	30·2	35·7	− 5·4	0	44	5	1·81	−0·37	*	*	*	*
	Glasgow	46	24	40·3	30·1	35·2	− 4·8	0	48	6	0·48	−0·41	1·1	− 3·3	2	− 7
	Ardrossan	49	26	44·4	31·3	37·9	− 4·1	7	39	5	0·72	−0·16	*	*	*	*
	Glenlee Ⓢ	47	23	40·9	29·1	35·0	− 4·0	0	49	5	1·09	−0·29	*	*	*	*
	Douglas (Isle of Man)	50	29	46·1	31·4	38·8	− 4·1	11	40	6	1·13	+0·03	20·8	+ 8·7	38	+17
7. ENGLAND, N.W.	Newton Reigny	44	21	38·7	26·5	32·6	− 7·2	0	66	5	0·74	−0·07	10·9	+ 2·6	21	+ 5
	Stonyhurst	44	26	39·7	30·5	35·1	− 5·2	0	48	4	0·95	−0·13	3·7	− 4·9	7	− 9
	Blackpool 𝔐	47	27	44·4	32·9	38·7	− 2·3	7	34	3	1·02	+0·22	13·5	+ 7·0	25	+10
	Manchester	45	29	39·2	32·1	35·7	− 4·5	0	44	5	0·69	−0·13	*	*	*	*
	Liverpool Obsy. (Bidston)	45	31	42·1	33·3	37·7	− 4·3	0	31	6	0·75	+0·10	*	*	*	*
	Llandudno 𝔐	48	33	45·4	35·6	40·5	− 3·3	10	25	3	0·68	−0·11	17·4	+ 8·9	31	+16
	Holyhead	50	35	46·3	39·0	42·7	− 2·3	18	8	6	1·17	+0·29	*	*	*	*
8. ENGLAND, S.W.	Llandovery	53	22	45·3	27·9	36·6	− 5·4	9	52	5	0·61	−0·56	*	*	*	*
	Pembroke	51	38	48·0	39·7	43·9	− 1·9	23	6	6	0·84	−0·09	15·7	+ 4·3	28	+ 7
	Arlington (N. Devon)	48	27	45·0	31·4	38·2	− 4·2	8	39	4	0·87	−0·56	*	*	*	*
	Cullompton 𝔐	50	22	45·3	27·3	36·3	− 6·2	9	54	5	0·78	−0·10	21·4	+12·9	37	+21
	Falmouth	52	35	47·7	37·9	42·8	− 3·5	23	11	5	0·93	−0·32	30·4	+16·9	52	+29
	Plymouth	52	30	47·3	34·6	41·0	− 3·8	15	30	5	0·85	+0·07	24·1	+12·9	41	+20
	Prawle Point	51	33	49·1	35·4	42·3	− 2·6	30	18	5	0·32	−0·48	*	*	*	*
9. IRELAND, N.	Malin Head	49	35	43·6	36·7	40·2	− 1·7	4	20	7	0·74	.2	*	*	*	*
	Londonderry	50	31	42·0	33·7	37·9	− 3·6	0	29	7	0·61	−0·37	*	*	*	*
	Mullaghmore	51	36	45·9	37·6	41·8	− 2·2	11	18	7	0·97	−0·10	*	*	*	*
	Belmullet	47	32	45·0	35·7	40·4	− 4·8	8	25	7	1·28	?	*	*	*	*
	Markree Castle	50	25	43·6	31·9	37·8	− 3·3	4	37	7	0·72	−0·06	13·4	+ 3·0	24	+ 4
	Brookeborough												*	*	*	*
	Armagh	50	29	42·7	32·3	37·5	− 2·7	2	34	6	0·62	−0·07	7·8	− 4·2	14	− 9
	Donaghadee	50	29	43·9	32·3	38·1	− 4·4	5	35	7	0·71	−0·01	*	*	*	*
	Edgeworthstown	47	26	42·1	30·1	36·1	− 5·1	0	42	5	0·54	−0·29	*	*	*	*
10. IRELAND, S.	Dublin	52	31	44·1	33·3	38·7	− 4·7	6	32	3	0·36	−0·26	28·2	+13·7	50	+25
	Parsonstown	50	28	45·0	30·3	37·7	− 4·1	8	43	5	0·42	−0·26	17·7	+ 5·2	32	+10
	Kilkenny	51	25	44·9	28·0	36·5	− 6·7	8	51	4	0·53	−0·11	*	*	*	*
	Waterford	51	26	46·4	29·6	38·0	− 6·8	12	46	4	1·05	+0·10	*	*	*	*
	Roche's Point	51	31	48·0	35·0	41·5	− 3·7	17	29	4	1·07	−0·06	*	*	*	*
	Valencia	53	31	45·3	35·7	42·5	− 4·1	30	18	7	1·72	+0·50	27·8	+16·7	49	+23
	Killarney	52	25	46·4	30·0	38·2	− 5·8	12	45	5	1·34	?	*	*	*	*
	Foynes	51	34	45·8	35·7	40·8	− 2·9	11	25	6	0·59	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	53	41	50·0	42·9	46·5	− 1·7	32	0	5	0·69	−0·23	*	*	*	*
	Jersey	51	35	49·3	37·6	43·5	− 2·7	29	12	4	0·91	−0·06	26·6	+14·4	44	+22

Stations marked 𝔐 are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

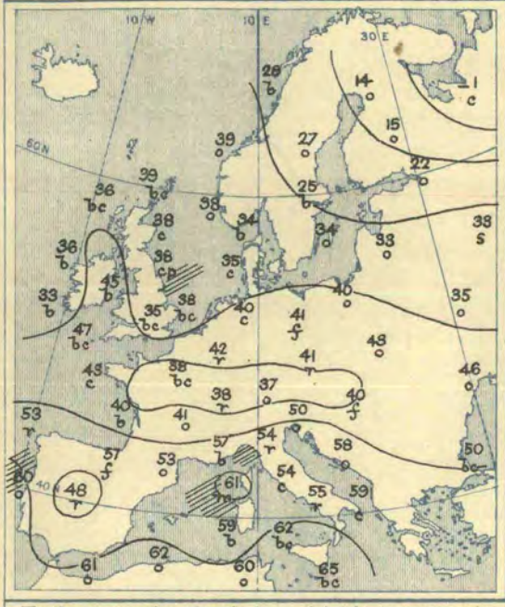
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

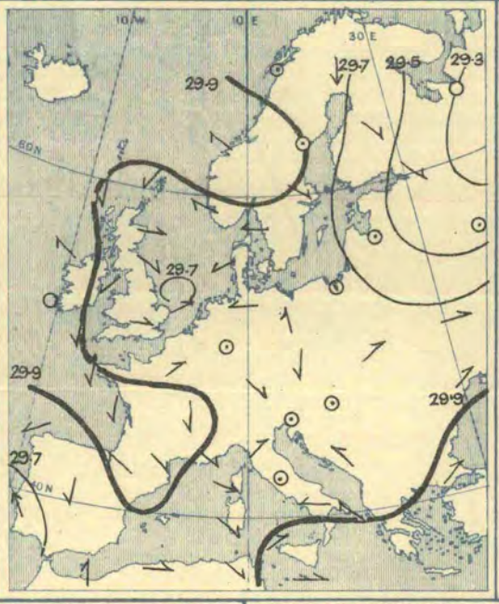
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 22nd November.

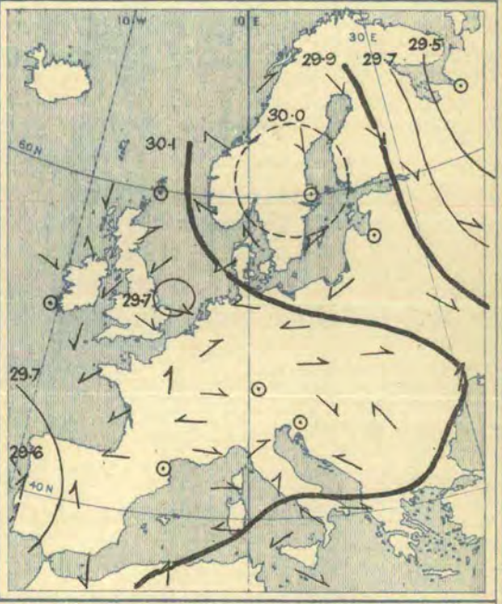
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning, though fine and bright in many parts of the British Islands, dull and unsettled as a whole over Europe; rain falling in many places—notably over Germany and the east of France, snow at Moscow. A little cold rain later in many parts of our Islands, and larger quantities over Belgium, Germany, Poland, the south of France, and at Lisbon. Very heavy fall at Leghorn.

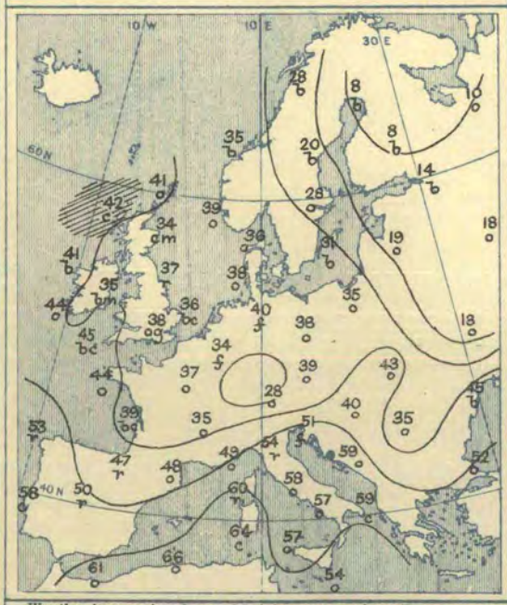
Temperature risen over Russia, fallen elsewhere. Morning readings above 60° on the southern side of the Mediterranean, much lower elsewhere; below 40° in most places (not over Germany, Austria, and Hungary), and as low as (1) −1° Fahr. at Archangel, +14° at Haparanda and Uleaborg, 15° at Kuopio, 22° at St. Petersburg, 25° at Stockholm, and 28° at Bodö; (2) 35° to 37° over the inland parts of the British Islands. Not touching 50° at any of our own stations during day, but reaching 49° on some parts of our southern coasts, 42° to 45° inland, 60° and more in the south of France and north of Italy, 70° and more over Algeria and southern Italy.

Wind moderate North-Westerly to Northerly over Finland and the Baltic, light and variable from same quarters over Great Britain and France. Extremely variable elsewhere, and almost dead calm over inland parts of Europe. Not much change later, but some tendency shown for South-Westerly winds on our extreme north-western coasts and for Southerly winds over Spain.

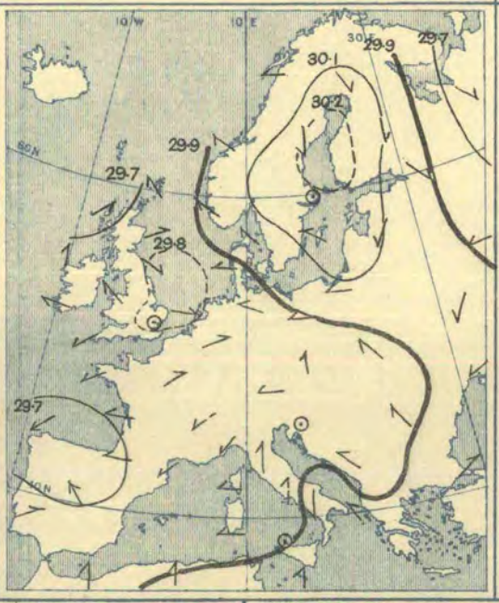
Barometer highest, 29·9 ins. and more (1) over the southern half of Norway and Sweden; (2) and more over Ireland, many parts of the Bay of Biscay, and south-west of France; (3) over the south-eastern parts of the Mediterranean. Lowest, (1) 29·3 ins. and less over the north-east of Russia; (2) below 29·8 ins. over nearly the whole of central and south-eastern Europe; (3) below 29·7 ins. in the south-west of Spain and over Morocco. Falling irregularly in our Islands and Spain later, rising decidedly over Scandinavia and the Baltic.

Monday, 23rd November.

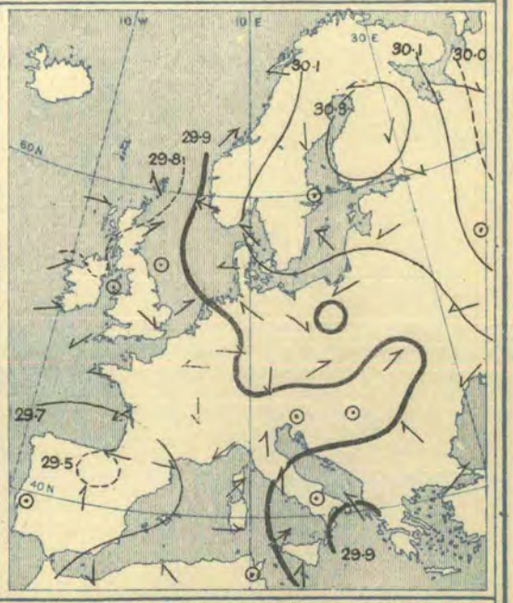
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over northern Europe; very quiet, but hazy, foggy, or gloomy, over the major part of the British Islands, France, and Germany; dull and rainy over the Spanish Peninsula and showery at some of our north-western and north-eastern stations. Some rain later over Scotland and the north of Ireland, and more in the south-west and south of France; considerable falls over Hungary and showers over central Europe generally, but dry, cloudy weather continuing over England, France, and Germany.

Temperature risen on the shores of the White Sea, in Norway, and in the north and west of Scotland and Ireland; fallen over the Continent, especially central and southern Russia. Morning readings still exceeding 60° on the southern side of the Mediterranean, and exceeding 50° at most stations in southern and south-eastern Europe. Below 40° over the greater part of the United Kingdom and central Europe, and as low as (1) 8° Fahr. at Haparanda and Kuopio, 10° at Archangel, 13° at Helsingfors and Kiev, 14° at St. Petersburg, 18° at Moscow, 35° at Neufahrwasser and Hermanstadt: (2) 30° at Nairn, 31° at Leith, 34° at Parsonstown and Oxford. Not touching 50° over our Islands later, but exceeding 60° in the south of France.

Wind extremely variable over France and central Europe, very light and variable from the Northward over England; Easterly over the Baltic, the eastern shores of the North Sea, and the Bay of Biscay; generally South-Westerly on the north-western coasts of the British Islands. Easterly wind freshening a little over the Bay of Biscay later, but wind on our north-western coasts shifting to North-Westward and dying down. Southerly breezes becoming general over the Mediterranean.

Barometer highest, 30·2 ins. and more to 30·0 ins. in an anticyclone lying over Sweden, Finland, and the eastern parts of the Baltic, and exceeding 30·0 ins. in a ridge extending thence over western Russia. Lowest, 29·6 ins. and less over the north-east of Russia, and 29·7 ins. and less both off our north-western coasts and in a shallow depression over the northern half of Spain. Rising later over Scandinavia and Scotland, falling over Spain, as the depression in that region increased somewhat in depth and spread eastwards to the Mediterranean.

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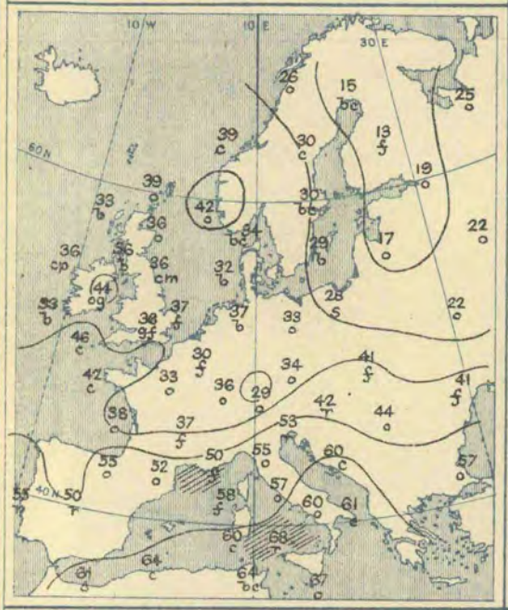
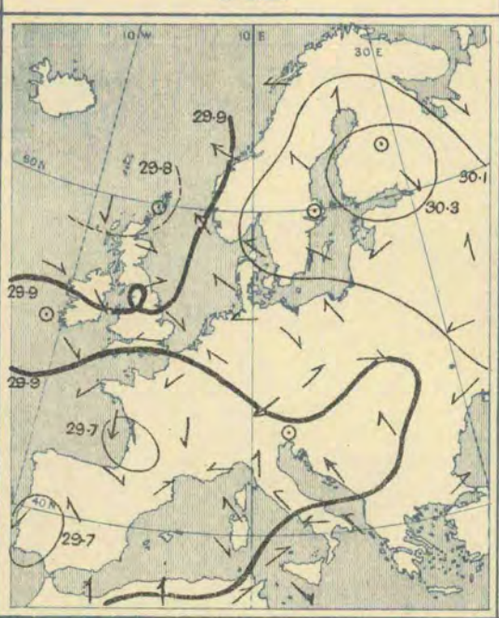
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 24th November.

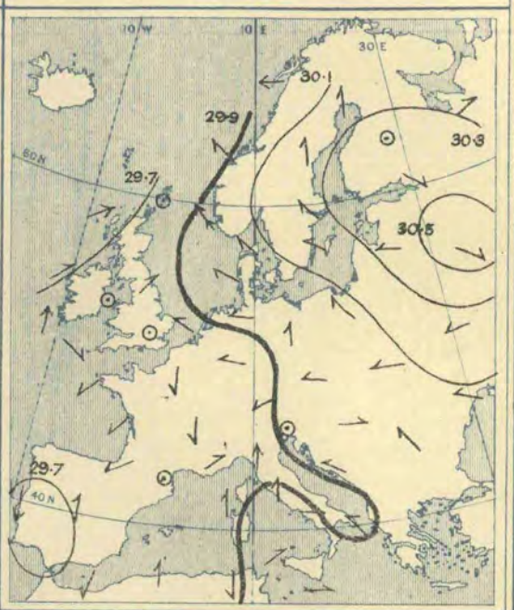
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fair but dull over northern Europe as a whole, fair also at most of the Norwegian, Irish, British, French, and German stations, but very foggy over the eastern and midland counties of England, as well as in the Netherlands and south of France. Dull and rainy over Austria, at Lisbon, and at one or two of our own western stations. Rain later on our north-western and western coasts—considerable in some localities; a rather large quantity in the south of France, and showers in Austria, western Russia, and northern Italy.

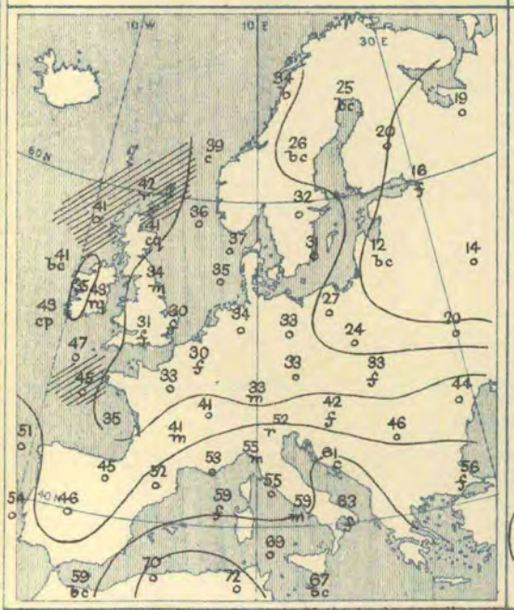
Temperature changing fitfully. Morning readings still exceeding 60° over the south of Italy and at several Algerian stations, and exceeding 50° over southern Europe generally, much lower elsewhere. Below 40° over the United Kingdom and Germany, below freezing point over northern Europe and Russia, and low as (1) 12° Fahr. at Helsingfors, 13° at Kuopio, 15° at Haparanda, 17° at Riga, 18° at Kharkov; (2) 29° at Parsonstown, 33° at York and Loughborough. Not touching 50° in our Islands later, and remaining below 40° over our eastern and north-eastern counties; not reaching 60° even in the south of France but touching 70° over southern Italy and exceeding that value in Algeria.

Wind very light and variable in almost all districts, strong from South-East in the west of Norway, fresh from North and North-West in the south-west of France, and from South-East at Toulon and over the Adriatic. Becoming Southerly on our extreme western and north-western coasts later and increasing to a gale from South-East at Skudesnaes. Remaining light and anticyclonic over Russia and Finland.

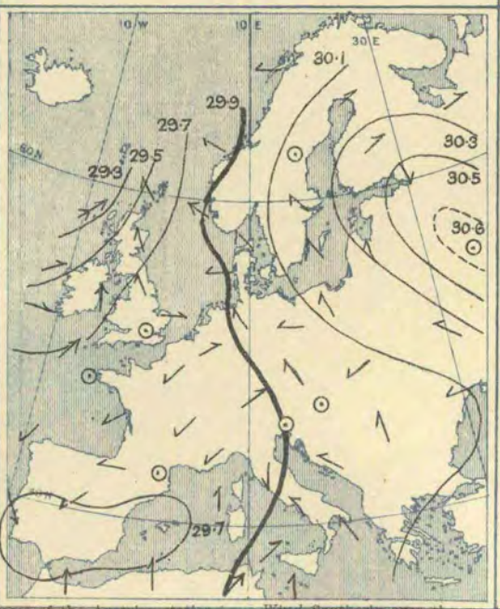
Barometer highest, 30·3 ins. and more to 30·1 ins. over Finland, Russia, and Sweden, and exceeding 30·0 ins. over the Black Sea and Asia Minor. Lowest, 29·8 ins. and less over the north of Scotland, the Hebrides, and Shetlands, and 29·7 ins. and less in two shallow disturbances—one over the south-west of France and the other over the south-west of the Spanish Peninsula. Falling rather decidedly in Ireland and the west of Scotland later, and fall beginning to spread eastwards; rising over Finland and Russia.

Wednesday, 25th November.

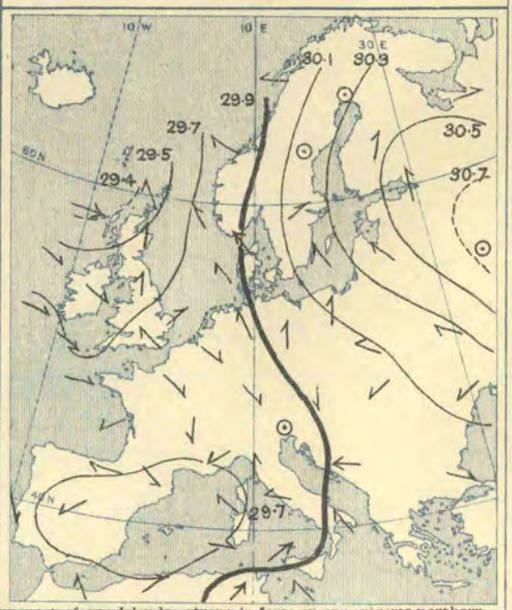
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather foggy over England and the Netherlands, as well as at some of the Austrian stations. Cloudy or overcast in most other parts of Europe, with rain or passing showers at several of our western and northern stations; fine in the north of Scandinavia, and also in Algeria. Fog clearing from over England later, but showery weather spreading over the whole of our Islands and a considerable portion of France; rainfall in north of Spain, the southern Departments of France, and in the north of Italy very large. Showers over Austria.

Temperature highest, 72° at La Calle, 70° at Algiers; above 60° over the central and southern parts of the Mediterranean generally, and above 50° on its northern shores. Lowest, 12° Fahr. at Riga, 14° at Moscow, 16° at St. Petersburg, 19° at Archangel, and 20° at Kuopio, Kiev, and Kharkov; below the freezing point over Sweden and Russia generally, and also over a considerable part of England. Rapid rise taking place later over the south and south-east of England, but thermometer remaining below 40° in the northern and eastern counties. Exceeding 50° in the south of France, and 60° at some stations, exceeding 70° in the south of Italy and Algeria, and touching 80° at Palermo.

Wind Southerly over the greater part of our Islands, strong in force on our extreme northern coasts, with a gale in the Hebrides; light from the Westward in the west and south of Ireland, calm or variable in the south-east of England. South-Easterly over the greater part of Scandinavia, Denmark, Germany, and Russia, but South-Westerly in the extreme north of Russia. Light and variable in Austria; chiefly South-Easterly in Italy and Southerly in Algeria, but Easterly in the west and south of France and Northerly or North-Easterly in Spain. Subsequently veering to the Westward in all the more western parts of our Islands, and becoming moderate from South in the north. Remaining South-Easterly over Scandinavia and the Baltic.

Barometer highest, 30·6 ins. and more to 30·4 ins. in a large anticyclone lying over Russia. Lowest, 29·4 ins. and less in a depression lying off the north-west of Scotland; 29·7 ins. and less in a large shallow area lying over the southern parts of Spain and the adjacent parts of the Mediterranean. Depression off north-west of Scotland subsequently travelling away to the northward, but secondary disturbances advancing over our Islands from the westward. Anticyclone over Russia increasing in intensity to 30·7 ins. and more at Moscow.

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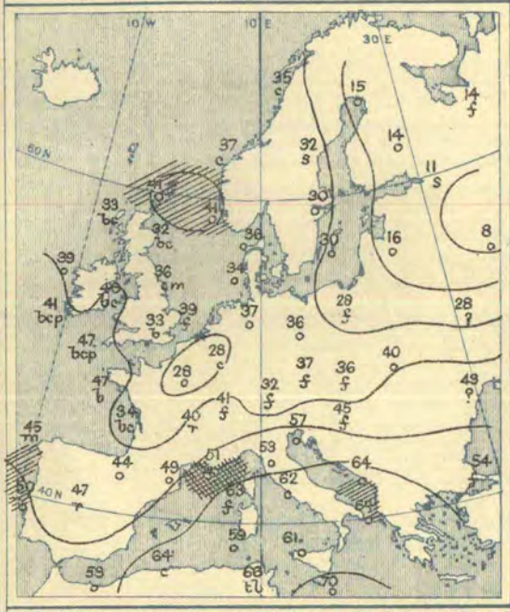
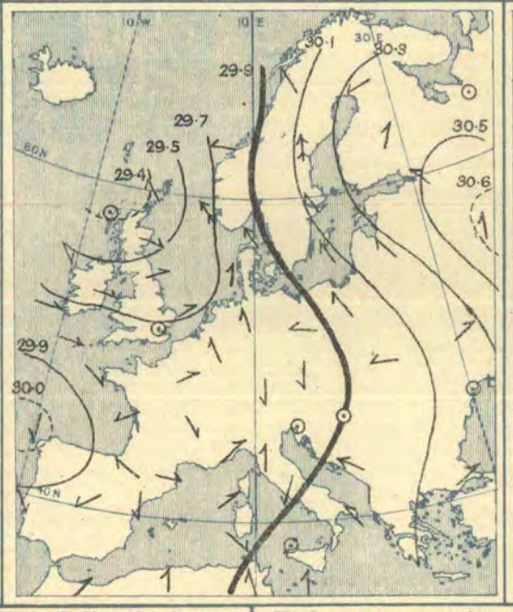
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday. 26th November.

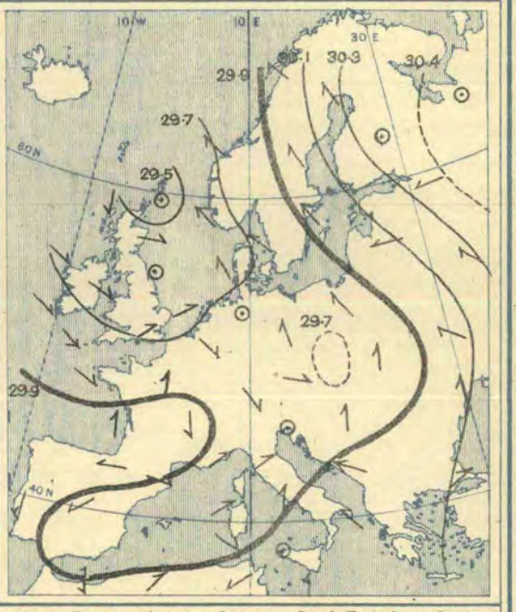
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright (temporarily) over Great Britain, the Channel, and west of France, very foggy over the greater part of central Europe and at Constantinople; cloudy or overcast elsewhere, with snow at St. Petersburg, rain in the south of France, and showers of rain and hail over Ireland and the Scilly Islands. Rain later all over Ireland and England, snow and hail at Birkenhead, hail at Prawle Point, thunder at the Helder. Considerable rain over France and at Biskra (Algeria); snow in Sweden and some parts of Russia.

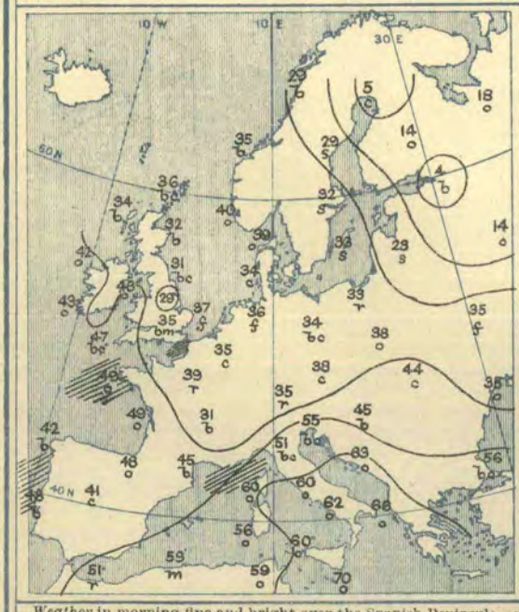
Temperature remaining low over the British Islands, inclined to rise over Austria, Poland, western and southern Russia, and the Mediterranean. Morning readings exceeding 60° over Algeria and Italy; below 40° over the British Isles and Germany, and lowest (1) 8° Fahr. at Moscow, 17° at St. Petersburg, 14° at Kuopio and Archangel, 15° at Haparanda, 16° at Riga, 28° at Warsaw and Kiev; (2) 28° at Paris and Brussels, 32° at Loughborough, 33° in London, and 34° at Parsonstown. Rising to 50° or a little more at Valencia, Scilly, and Jersey during the day, as well as in some parts of France, to 60° and more over northern Italy, 70° and more at Malta and in Algeria, and to 82° at Palermo.

Wind very light and variable over Spain, France, and western Germany; South-Easterly, moderate, over eastern Germany, the Baltic, and Scandinavia (a gale at Skudesnaes and Hernösand); Westerly to Southerly, moderate, over the British Islands and English Channel. Veering to North-West in Ireland later and the South-Easterly gale subsiding at Skudesnaes.

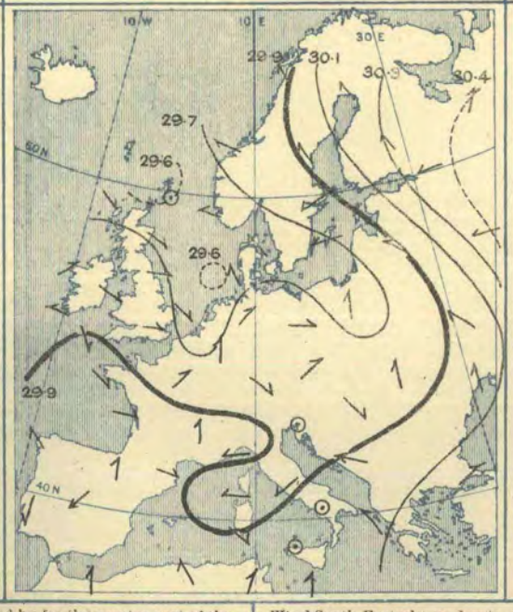
Barometer highest, 30·6 ins. and more to 30·0 ins. in a large anticyclone covering Finland, Russia, the Black Sea, and Asia Minor; 30·0 ins. and more to 29·9 ins. in a smaller system spreading over the north-west of Spain and the Bay of Biscay from the Atlantic. Lowest, 29·4 ins. and less in a depression lying off the north of Scotland, and 29·8 ins. and less in a large shallow system of irregular form covering the western and northern shores of the Mediterranean, northern Italy, and southern and western Germany. Shallow secondary systems advancing eastwards across our Islands later, and Russian anticyclone giving way and moving North-Eastwards.

Friday, 27th November.

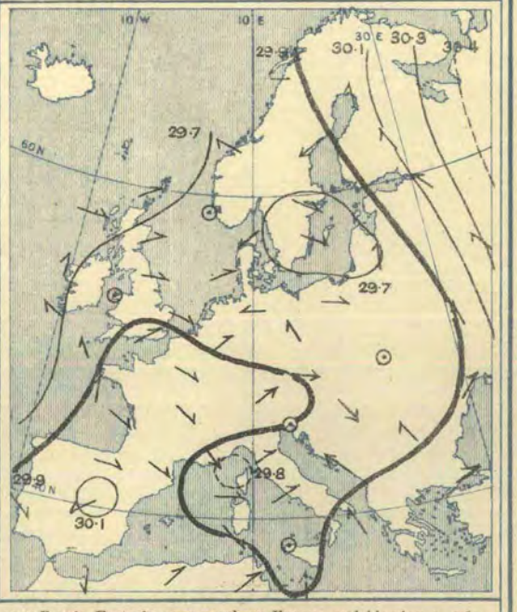
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine and bright over the Spanish Peninsula, and by far the greater part of the British Isles and Norway; cloudy or overcast elsewhere, unsettled over the north-western parts of the Continent as a whole, with rain at Paris and Neufahrwasser, snow at the Swedish stations and Faerder. Rain again setting in over Ireland and at Brest later in the day; further falls of rain or snow occurring over Sweden, Finland, western Russia, Germany, and Austria-Hungary, as well as showers in some parts of Italy and Algeria.

Temperature unsteady; considerable rise over Poland, Hungary, and southern Russia. Morning readings 60° to 70° over the south of Italy and Malta, much lower elsewhere. Exceeding 40° over Austria, Spain, and the west and south-west of our Islands; below 40° in the north and east, and as low as (1) 4° Fahr. at St. Petersburg, 5° at Haparanda, 9° at Uleaborg, 14° at Moscow and Kuopio, 29° at Hernösand and Bodö; (2) 29° at Loughborough and Ardrossan, 30° at York, and 32° at Parsonstown. Rising to between 50° and 53° over the south-western half of our Islands, and to 55° and more in the west and south of France, but not touching 60° in either country. Exceeding 60° over Italy and over Algeria, and exceeding 70° at Palermo and Malta.

Wind South-Easterly, moderate, over Russia, Easterly over northern Europe, and blowing a gale in the Gulf of Finland; Westerly to North-Westerly over the United Kingdom, Southerly to South-Easterly over the Netherlands, Westerly over Germany, North-Easterly over the Iberian Peninsula, very variable over the Mediterranean. Becoming Southerly over the western parts of the United Kingdom later, and South Easterly in the south of Ireland, and increasing somewhat in strength. Easterly gale in Finland veering to South-East, and well-marked cyclonic system forming over the Gulf of Genoa and neighbouring parts of France and Corsica.

Barometer highest, (1) 30·4 ins. and more to 30·0 ins. over Russia, the Black Sea, and Asia Minor; (2) 30·0 ins. and more over the Peninsula and south-west of France, and exceeding 29·9 ins. in a "ridge" extending thence in a northerly direction to our south-west coasts. Lowest, 29·6 ins. and less in a depression lying to the north-westward of Sumburgh Head, and about 29·6 ins. in an irregularly-shaped hollow over the North Sea and Baltic. Falling briskly in Ireland later, and fall extending to the eastward and northward. Russian anticyclone still moving north-eastwards, that over Spain increasing slightly in intensity.

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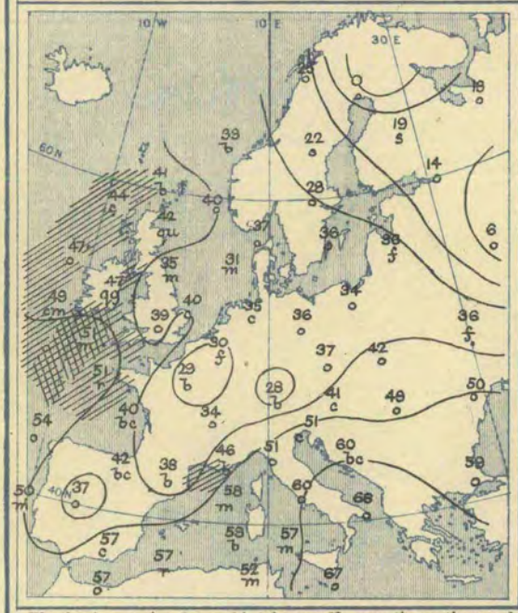
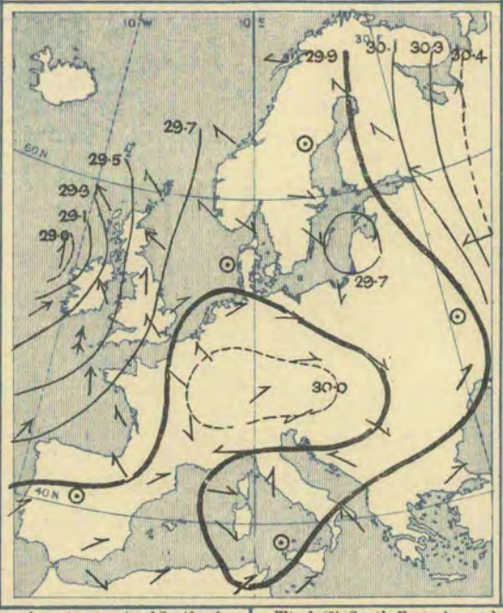
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 28th November.

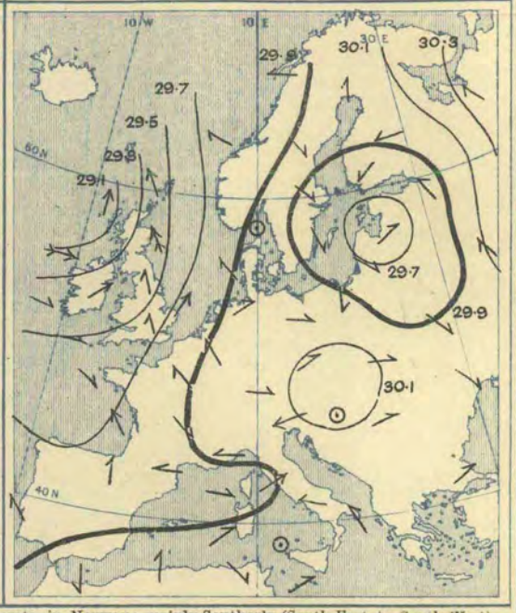
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over Norway, the northern and north-eastern parts of Scotland, several parts of France, and many of the Mediterranean coasts; fair and quiet (but dull) over central Europe, cloudy or overcast and unsettled elsewhere, with a squally, rainy, threatening condition in Ireland and Scotland, snow at Kuopio, fog over southern Russia and the Baltic Provinces. Rain later in all parts of the United Kingdom and Brittany (heavy in the north-west and south-west), as well as in Portugal and on the southern and south-eastern shores of the Mediterranean, snow in several parts of Russia.

Temperature risen somewhat over north-western and northern Europe. Morning readings, 67° at Malta, 66° at Brindisi, below 60° elsewhere; above 50° on the Iberian and Italian coasts, below 40° over Germany and the central parts of the British Islands, much lower elsewhere. Lowest, (1) 6° at Moscow, 14° at St. Petersburg, 19° at Kuopio and Uleaborg; (2) 28° at Munich and Belfort, 29° at Paris. Not touching 50° over Great Britain or Ireland later, but reaching 55° in the south of France, 61° at Biarritz, 70° and more on the southern side of the Mediterranean.

Wind, (1) South-Easterly, moderate, in Norway; mainly Southerly (South-East to South-West) over the British Islands and the Channel, and blowing a gale in the west and north; Southerly and less strong over the Bay of Biscay and Portugal; (2) North-Westerly over the Baltic, South-Easterly over Finland and Russia; (3) light and anticyclonic over central Europe. Increasing in force over the United Kingdom later, and blowing very hard in Scotland, and Southerly breeze spreading inland over France and also over the North Sea.

Barometer was highest, 30·4 ins. and more to 30·0 ins., over the north-eastern and central parts of Russia; 30·0 ins. and more to 29·9 ins. in a separate anticyclone over central Europe; and (3) in another over Algeria and the southern half of Spain. Lowest, 29·0 ins. and less in a depression off the west of Ireland, and 29·7 ins. and less in another over the Baltic Provinces and Gulf of Riga. Western depression moving north-eastwards later, and barometer subsequently falling to 28·8 ins. at Stornoway; disturbance over Baltic Provinces growing deeper.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

At the beginning of the present week barometric pressure was highest over the Atlantic and lowest over northern Russia, while a small shallow depression was found over the eastern parts of England. Temperature was consequently rather low over western Europe, the weather was quiet and foggy, and the barometer inclined to rise. By Tuesday evening an important change had taken place, pressure had become highest over Russia, lowest off our north-west coasts, while over central and western Europe readings were very uniform. Disturbances, however, soon brought showery, unsettled weather to the western and northern parts of the United Kingdom, while other systems caused heavy falls of rain over Spain and southern Europe generally. Still later the depressions in the north-west were spreading more over the British Islands and their neighbourhood, and the weather in those parts was becoming very unsettled and rainy.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 278.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	7·5	?	15	?	NEWQUAY	24·1	?	41	?
OSWALDKIRK (Yorkshire)	10·2	?	18	?	TORQUAY	32·5 *	?	55 *	?
WORKSOP	11·1	+ 2·1	20	+ 3	ARLEY COTTAGE (County Cavan)	11·5	?	21	?
THURCASTON (Leicestershire)	15·2	+ 7·0	27	+11	GUERNSEY	18·3 *	?	30 *	?
EASTBOURNE	24·5	?	42	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 48.] *Third Series.* WEEK ENDING SATURDAY, 5TH DECEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1856–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 284.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH	58	30	48·5	38·6	43·8	5 above.	27	+16	10	−15	2064	+209	759	+108
1. SCOTLAND, EAST	57	28	48·8	36·1	42·7	5 above.	30	+18	17	−14	2282	− 59	857	+157
2. ENGLAND, N.E.	59	28	48·4	37·2	43·0	4 above.	27	+14	13	−10	2418	− 92	688	+106
3. ENGLAND, EAST	57	25	50·0	36·8	43·7	4 above.	34	+19	15	− 7	2844	− 61	778	+112
4. MIDLAND COUNTIES	58	25	50·1	36·7	43·7	4 above.	34	+19	15	−11	2745	− 97	776	+105
5. ENGLAND, SOUTH	57	29	51·5	41·8	46·8	6 above.	34	+11	1	−19	3070	−104	616	+130
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST	62	27	49·9	40·0	45·1	5 above.	30	+14	6	−11	2517	+ 89	558	+ 67
7. ENGLAND, N.W.	59	29	49·9	39·6	45·0	4 above.	31	+14	7	− 8	2671	+ 32	512	+ 41
8. ENGLAND, S.W.	57	27	52·0	42·7	47·6	4 above.	39	+13	0	−10	2846	−139	472	+118
9. IRELAND, NORTH	56	30	48·9	39·2	44·2	3 above.	27	+ 9	8	−11	2605	+ 12	497*	+ 67
10. IRELAND, SOUTH	58	29	51·7	40·2	46·1	3 above.	33	+10	5	−10	2904	− 54	395	+ 66
— CHANNEL ISLANDS	58	44	54·0	47·1	50·7	4 above.	61	+20	0	− 3	3394	− 32	167	+ 41

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 284.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts. **0.** SCOTLAND, NORTH	6	19	7 more.	221	− 3	47·9	+ 3·1	4	?	9	?	1133	0	27	0
1. SCOTLAND, EAST	5	8	1 more.	170	−14	27·8	− 1·9	7	0	15	0	1272	− 40	30	− 1
2. ENGLAND, N.E.	4	4	2 less.	166	− 6	22·4	− 2·3	7†	− 2	13	− 1	1183†	− 26	28	− 1
3. ENGLAND, EAST	7	8	2 more.	181	+13	24·6	+ 0·3	8	− 3	15	− 3	1381	− 93	33	− 2
4. MIDLAND COUNTIES	5	7	1 more.	176	+10	27·8	+ 0·8	11	+ 2	20	+ 4	1305	− 12	31	0
5. ENGLAND, SOUTH	7	11	5 more.	173	+12	30·8	+ 4·9	5	− 5	8	−10	1495	+ 69	36	+ 2
Principal Grazing, &c., Districts. **6.** SCOTLAND, WEST	7	21	8 more.	186	− 7	43·0	− 3·1	9	+ 1	16	+ 2	1339	+ 45	32	+ 1
7. ENGLAND, N.W.	5	14	5 more.	168	−11	33·6	+ 1·0	11	+ 3	20	+ 6	1222	− 60	29	− 1
8. ENGLAND, S.W.	6	13	3 more.	181	− 6	40·0	+ 2·3	15	+ 3	26	+ 8	1561	+ 18	37	0
9. IRELAND, NORTH	7	13	5 more.	205	− 5	31·5	− 2·5	16	+ 4	24	+ 8	1313	+115	31	+ 2
10. IRELAND, SOUTH	6	16	7 more.	185	− 7	35·8*	− 0·2	17	+ 5	30	+ 8	1441	+ 47	34	+ 1
— CHANNEL ISLANDS	7	11	2 more.	182	−17	33·2	+ 2·2	14	+ 2	24	+ 2	1937	+126	47	+ 4

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather during this period was again very unsettled, mild, and humid, with rain at frequent intervals.

Temperature was above the mean in all districts, the excess ranging from 3° in Ireland to 4° or 5° in most parts of Great Britain, and to 6° in England S. The highest of the maxima were generally recorded between the 3rd and 5th, and varied from 56° in Ireland N., to 59° in England N.W. and N.E., and to 62° in Scotland W. The lowest of the minima were recorded during the earlier part of the week, and ranged from 25° in England E. and Midland Counties to 30° in Scotland N. and Ireland N. In the Channel Islands, however, the thermometer did not fall below 44°.

Rainfall was rather less than the mean in England N.E., but in all other districts it was more than the normal, the excess in most cases being considerable.

Bright Sunshine shows a decrease on that recorded during the preceding week, but in all the western and north-western districts it again exceeded the mean for the time of year. The percentage of the possible duration ranged from 8 in England S. and 9 in Scotland N. to 26 in England S.W. and to 30 in Ireland S.

Barometer and Wind.—During the whole of this week depressions—some of them large and deep—travelled in a north-westerly direction outside our extreme western and northern coasts, and secondary disturbances occasionally passed more directly over the United Kingdom. South-Westerly to Southerly winds consequently prevailed very generally and frequently increased considerably in force; in the west and north a gale was experienced.

NOTE.—In consequence of the variable amount of sunshine recorded at the stations in Scotland N. and the only "Mean" available being for Stornoway, it is impossible to give any "Difference from the Mean" for this week.

* This value has been altered owing to the receipt of further information.

† The corresponding value for the week ending November 14th should read "8" and "1156."

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II.—DATA from which the SUMMARY on page 283 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	51	38	47·9	41·0	44·6	+ 5·6	22	3	7	0·94	−0·03	*	*	*	*
	Stornoway	51	33	48·4	39·6	44·2	+ 5·4	25	7	7	1·80	+0·62	11·0	+ 5·0	23	+13
	Wick	52	36	48·0	38·9	43·6	+ 5·0	24	9	3	0·23	−0·45	*	*	*	*
	Lairg ℌ	52	30	47·2	33·6	40·7	+ 3·7	15	35	7	0·87	−0·01	*	*	*	*
	Glencarron ℌ	53	32	48·2	36·7	42·7	+ 4·4	27	15	7	3·70	+1·53	*	*	*	*
	Fort Augustus ℌ	55	33	49·2	38·7	44·2	+ 5·3	29	9	7	2·47	+1·42	1·1	?	2	?
	Fort William ℌ	58	37	50·5	41·8	46·3	+ 6·2	31	1	7	3·37	+1·62	0·5	?	1	?
1. SCOTLAND, E.	Nairn	57	32	50·6	36·1	43·6	+ 5·3	36	17	4	0·23	−0·27	*	*	*	*
	Aberdeen	55	32	48·7	38·0	43·6	+ 4·7	28	11	3	0·37	−0·33	8·9	− 0·3	19	− 2
	Braemar ℌ	50	28	45·1	34·4	40·0	+ 4·6	9	31	6	1·08	+0·28	2·8†	? †	6†	?†
	Ochtertyre ℌ	54	31	49·7	36·3	43·3	+ 5·6	33	16	7	1·66	+0·68	*	*	*	*
	Leith	57	34	50·9	36·6	44·0	+ 3·9	37	15	5	0·72	+0·28	*	*	*	*
	Marchmont ℌ	53	29	47·6	35·0	41·6	+ 3·8	16	31	4	0·81	+0·03	10·8	?	22	?
2. ENGLAND, N.E.	Alnwick Castle	56	31	49·4	38·3	44·1	+ 4·9	30	10	4	0·30	−0·43	*	*	*	*
	Durham	57	29	48·2	36·9	42·8	+ 4·5	27	14	4	0·25	−0·48	11·1	+ 0·7	22	+ 2
	Shields	57	30	49·3	36·3	43·1	+ 3·2	32	15	4	0·33	−0·28	*	*	*	*
	Scarborough ℳ	55	32	46·6	37·9	42·4	+ 2·2	20	16	5	0·73	+0·08	*	*	*	*
	York	59	28	49·3	34·9	42·4	+ 3·4	33	20	5	0·46	−0·04	3·6	− 2·7	7	− 5
	Spurn Head	53	36	47·3	38·7	43·2	+ 2·6	22	9	4	0·56	−0·02	*	*	*	*
3. ENGLAND, E.	Hillington ℳ	56	25	48·7	35·0	42·1	+ 3·2	30	20	6	0·32	+0·33	10·2	+ 0·7	19	+ 1
	Yarmouth	55	32	49·4	38·6	44·2	+ 3·9	30	10	7	0·53	−0·07	*	*	*	*
	Geldeston	56	29	50·2	37·0	43·9	+ 4·0	34	14	7	0·69	+0·09	7·3	− 4·7	13	− 8
	Cambridge	57	28	50·9	35·9	43·7	+ 4·6	38	17	6	0·64	+0·19	8·9	− 2·1	16	− 4
	Rothamsted	56	28	50·7	37·5	44·4	+ 5·3	36	13	7	1·13	+0·54	6·2	?	11	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	56	26	49·6	36·1	43·1	+ 4·1	32	17	5	0·37	−0·08	*	*	*	*
	Loughborough	56	25	50·3	36·4	43·3	+ 4·4	35	16	5	0·74	+0·25	*	*	*	*
	Stamford (Ketton Hall)	56	25	50·0	34·6	42·6	+ 3·4	35	21	6	0·77	?	*	*	*	*
	Cheadle ℳ	53	28	47·9	36·8	42·6	+ 4·4	26	15	5	0·69	−0·02	*	*	*	*
	Churchstoke ℳ	56	28	50·6	37·6	44·4	+ 5·1	35	12	5	0·56	−0·20	15·5	+ 6·9	29	+13
	Hereford ℳ	58	28	51·2	36·0	43·9	+ 3·7	39	17	5	0·41	−0·14	*	*	*	*
	Cirencester	56	26	50·7	36·6	43·9	+ 5·0	36	15	6	0·73	+0·05	9·6	+ 0·2	17	0
	Oxford	57	29	50·6	39·1	45·1	+ 5·1	34	8	6	0·93	+0·43	8·7	− 0·1	16	− 1
5. ENGLAND, S.	London	57	36	51·9	41·0	46·7	+ 6·0	37	3	7	0·78	+0·28	2·4 †	− 2·9†	4†	− 5†
	Strathfield Turgiss ℳ	56	31	51·2	39·3	45·5	+ 6·0	36	8	7	1·12	+0·58	*	*	*	*
	Dungeness	55	32	51·9	43·4	47·8	+ 5·9	41	0	7	0·83	+0·13	*	*	*	*
	Hastings (St. Leonards)	54	37	51·8	42·9	47·5	+ 5·6	39	0	7	0·89	+0·18	5·0	− 7·5	9	−13
	Southampton	55	35	50·6	41·6	46·3	+ 4·7	32	1	7	1·97	+1·28	5·2	− 4·9	9	−10
	Hurst Castle	54	39	51·9	45·0	48·6	+ 5·8	46	0	7	1·23	+0·59	*	*	*	*
	Stowell ℳ	54	29	51·1	39·2	45·4	+ 5·2	36	8	6	1·05	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	58	37	51·3	40·6	46·1	+ 5·6	35	4	7	2·74	+0·57	*	*	*	*
	Glasgow	54	35	48·1	40·3	44·4	+ 5·2	24	5	7	1·11	+0·21	3·7	− 0·1	7	− 1
	Ardrossan	53	38	50·3	42·6	46·6	+ 5·3	32	0	6	1·24	+0·40	*	*	*	*
	Glenlee ℌ	56	27	48·7	36·9	43·0	+ 4·7	28	14	7	2·95	+1·50	*	*	*	*
	Douglas (Isle of Man)	62	30	51·3	39·4	45·6	+ 3·4	36	7	6	2·49	+1·41	13·4	+ 2·3	25	+ 5
7. ENGLAND, N.W.	Newton Reigny	55	29	47·6	36·3	42·2	+ 3·6	25	16	6	1·72	+0·92	8·4	+ 1·2	16	+ 1
	Stonyhurst	56	31	48·1	38·5	43·5	+ 4·1	25	10	5	1·28	+0·20	6·2	− 1·1	12	− 2
	Blackpool ℳ															
	Manchester	55	29	48·8	37·5	43·4	+ 4·2	29	13	5	0·97	+0·16	*	*	*	*
	Liverpool Obsy. (Bidston)	59	32	51·3	40·1	45·9	+ 4·8	35	5	5	1·10	+0·48	*	*	*	*
	Llandudno ℳ	59	35	51·7	41·6	46·9	+ 3·8	36	1	4	1·13	+0·33	17·0	+ 9·8	31	+18
	Holyhead	54	37	51·9	44·3	48·3	+ 4·1	44	0	5	1·97	+1·09	*	*	*	*
8. ENGLAND, S.W.	Llandovery	55	27	51·1	37·3	44·5	+ 3·0	37	13	6	1·34	+0·16	*	*	*	*
	Pembroke	55	41	52·6	46·7	49·8	+ 4·7	55	0	7	1·66	+0·74	14·3	+ 3·4	26	+ 6
	Arlington (N. Devon)	55	32	50·9	39·4	45·4	+ 3·7	35	7	7	1·40	0·00	*	*	*	*
	Cullompton ℳ	57	28	52·7	39·7	46·5	+ 4·9	41	6	5	0·89	+0·04	12·2	+ 4·4	22	+ 7
	Falmouth	55	39	52·5	46·0	49·4	+ 3·8	52	0	7	1·88	+0·66	18·1	+ 5·6	32	+10
	Plymouth	55	35	52·8	45·4	49·3	+ 5·4	51	0	7	1·18	+0·38	15·2	+ 4·2	27	+ 6
	Prawle Point	53	40	51·7	44·4	48·2	+ 4·1	43	0	6	0·96	+0·11	*	*	*	*
9. IRELAND, N.	Malin Head	53	37	48·7	39·4	44·2	+ 3·1	26	7	7	0·71	?	*	*	*	*
	Londonderry	55	36	48·7	39·4	44·2	+ 3·5	26	7	7	1·00	+0·08	*	*	*	*
	Mullaghmore	55	39	50·4	42·9	46·8	+ 3·5	34	0	7	0·92	−0·14	*	*	*	*
	Belmullet	54	40	49·9	43·1	46·6	+ 1·7	32	0	7	2·05	?	*	*	*	*
	Markree Castle	54	32	48·6	37·1	43·1	+ 2·9	28	14	7	1·28	+0·50	13·4	+ 4·4	25	+ 7
	Brookeborough	53	33	46·8	37·5	42·3	+ 3·2	21	13	7	1·73	+0·73	*	*	*	*
	Armagh	56	35	48·2	38·9	43·7	+ 4·3	25	9	5	1·36	+0·68	14·2	+ 3·5	27	+ 7
	Donaghadee	55	31	50·4	38·3	44·6	+ 2·7	34	10	7	1·04	+0·34	*	*	*	*
	Edgeworthstown	54	30	48·3	35·9	42·4	+ 2·2	28	17	6	1·84	+1·04	*	*	*	*
10. IRELAND, S.	Dublin	58	35	51·2	41·2	46·4	+ 3·9	34	2	4	0·32	−0·28	21·1	+ 8·1	39	+15
	Parsonstown	57	31	51·7	37·4	44·8	+ 4·0	39	13	7	0·93	+0·23	16·5	+ 5·6	31	+10
	Kilkenny	55	29	51·4	36·1	44·1	+ 1·9	39	17	5	1·30	+0·64	*	*	*	*
	Waterford	54	29	51·8	40·4	46·3	+ 2·4	37	4	7	1·57	+0·60	*	*	*	*
	Roche's Point	54	35	51·7	42·4	47·2	+ 2·3	36	0	6	2·06	+0·94	*	*	*	*
	Valencia	55	36	52·6	42·1	47·6	+ 1·5	39	0	6	2·73	+1·47	11·4	+ 1·3	21	+ 2
	Killarney	56	29	51·4	39·4	45·6	+ 2·6	36	7	7	2·68	?	*	*	*	*
	Foynes	57	38	51·4	42·3	47·0	+ 4·0	35	0	6	1·32	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	56	44	53·3	47·0	50·3	+ 2·7	58	0	7	1·07	+0·17	*	*	*	*
	Jersey	58	44	54·6	47·1	51·0	+ 5·7	63	0	7	1·18	+0·24	13·9	+ 2·2	24	+ 2

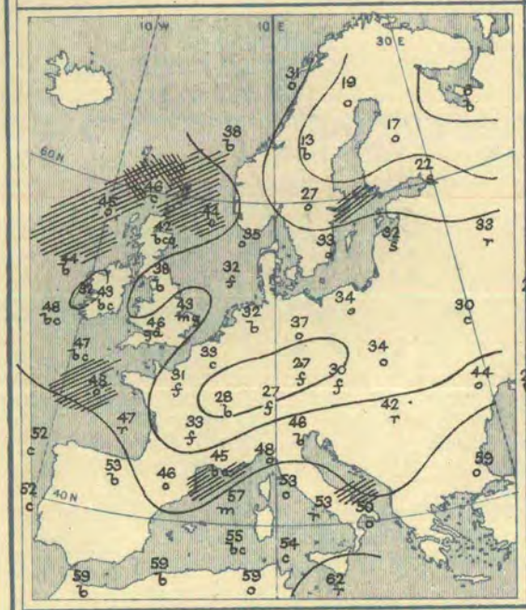
Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

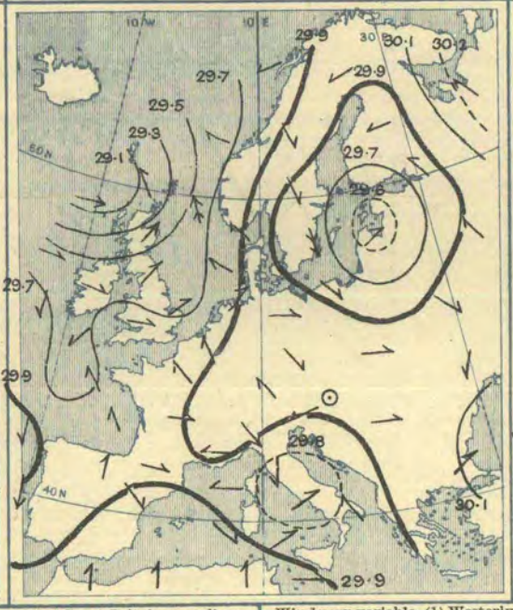
† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 29th November.

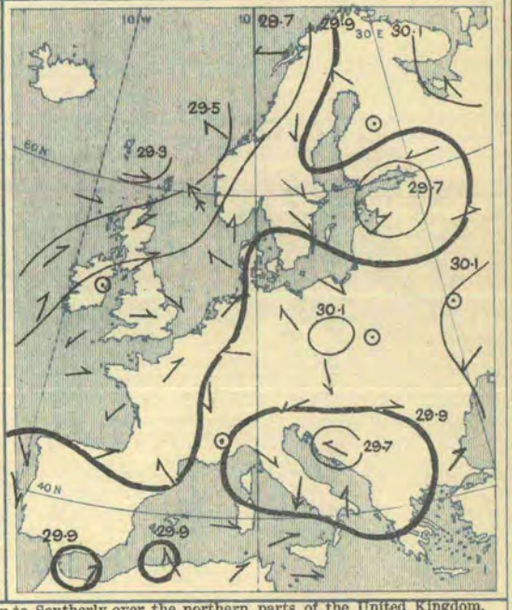
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over Ireland and the northern half of Great Britain, as well as in many parts of the south of France, Spain, and Algeria, and at Hernösand and Archangel; cloudy, more or less, or overcast, elsewhere, with fog in places. Thick drizzling rain over the south-east of England and some of the northern parts of France, rain at Rochefort, Naples, Kharkov, and Moscow, snow. in the south of Finland. Rain later (1) in the Shetlands and south of Norway; (2) in the west and south of the British Islands, the Netherlands, the west and north of France; (3) in the south of Italy. Amounts small in England.

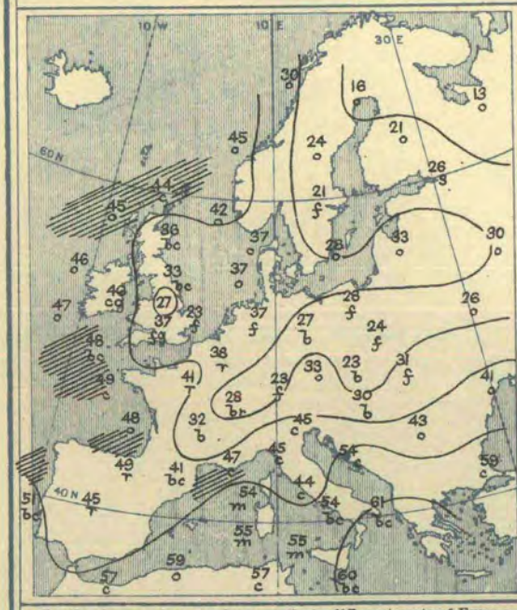
Temperature in morning—highest (62°) at Malta, and exceeding 60° at that station only; above 50° over nearly all the Mediterranean coasts, in Portugal, and the north of Spain; below 50° over our Islands (below 40° inland), and below the freezing point over central Europe and northern Russia. Lowest, (1) 6° Fahr. at Archangel, 13° at Hernösand, and 17° to 19° over Finland; (2) 27° at Münster, Prague, and Munich, 28° at Belfort, 30° at Lemberg, 31° at Paris, Wiesbaden, and Breslau. Not touching 50° over Great Britain or Ireland all day, but exceeding that value in the west and north of France, and exceeding 60° in Italy and Algeria.

Wind very variable, (1) Westerly to Southerly over the northern parts of the United Kingdom, South-Easterly in Norway; (2) Easterly to North-Easterly over Finland, Northerly in Sweden, North-Westerly to Westerly over north Germany; (3) North-Easterly at Trieste, North-Westerly to Northerly over northern Italy, South-Westerly to South-Easterly over southern Italy. Very light, with no general direction, elsewhere. Backing Southwards in Ireland later, but not increasing much in force. Veering to the Westward in the west of France.

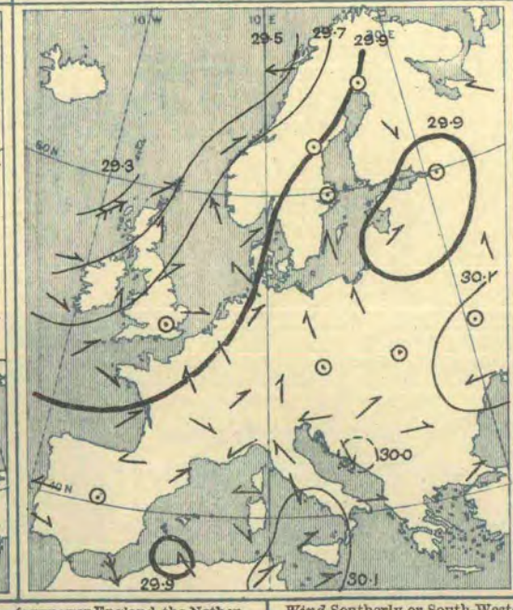
Barometer highest, (1) 30·2 ins. and more to 30·0 ins. over the north and north-east of Russia; (2) 30·1 ins. and more to 30·0 ins. over the Black Sea and southern Russia; (3) 30·0 ins. and more to 29·9 ins. over Algeria and the south of Spain; and (4) 29·9 ins. and more over the Atlantic to the westward of Spain. Lowest, (1) 29·1 ins. and less in a depression off the north of Scotland; (2) 29·6 ins. and less in another over the Baltic Provinces; (3) 29·8 ins. and less in a third over the southern half of Italy. Shallow local disturbances over the Channel and south of England. Northern depression travelling northwards later; disturbance over the Baltic Provinces partially filling up.

Monday, 30th November.

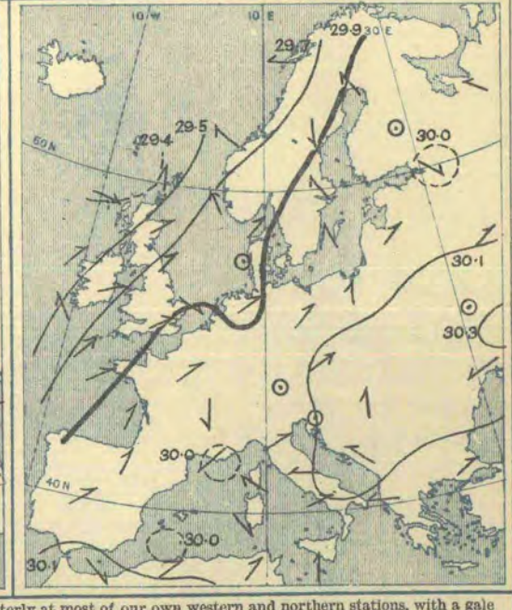
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning varying greatly in different parts of Europe—foggy over England, the Netherlands, and some parts of Germany and Poland; dull and rainy in the north of Ireland and the west of Scotland, as well as at some of the French and Belgian stations; snow falling at St. Petersburg. Fine in most of the central and southern countries, but cloudy over Algeria and central Spain, with rain at Nemours and Madrid. Slight drizzling rain falling during day in many parts of England, and a heavy fall setting in over Ireland at night.

Temperature highest, 61° at Brindisi, 60° at Malta, 59° at Algiers and Constantinople, and 57° at Oran and La Calle; above 50° at most of the Adriatic and Mediterranean stations, and above 45° in the west of our Islands. Lowest, (1) 13° at Archangel, 16° at Haparanda, 19° at Uleaborg, and 21° at Kuopio; (2) 23° at Cracow and Munich, and 24° at Warsaw; (3) 27° at Loughborough, 29° at York, and 30° at Oxford. Daily maxima a little above 50° at some of our south-western and southern stations, as well as on the French coasts; thermometer rising to 57° at Lisbon, and exceeding 60° in Italy and Algeria, the highest reading of all being 70° at Algiers.

Wind Southerly or South-Westerly at most of our own western and northern stations, with a gale in the Hebrides, but Westerly in the south of Ireland. Light from the Southward or South-Eastward over Norway, Denmark, and the greater part of central Europe. Calm over the central and south-eastern parts of England, and also in Sweden. Variable over Russia, France, southern Europe, and Algeria. Light Southerly or South-Westerly breezes setting in later over England and France; wind backing to the Southward in the south of Ireland. No important change occurring on Continent.

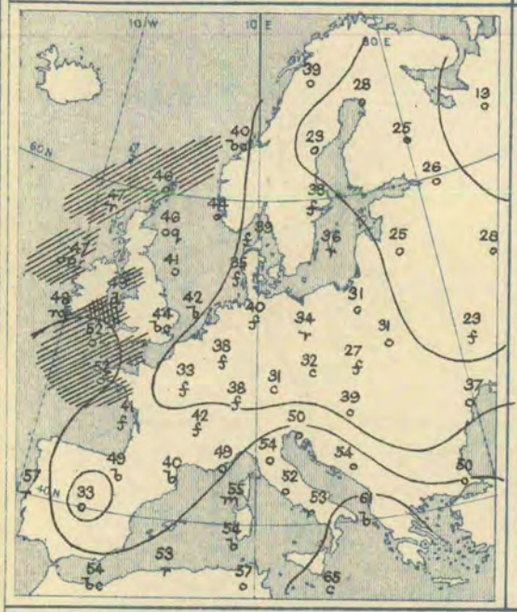
Barometer highest, 30·2 ins. and upwards in an anticyclone lying over southern Russia; 30·1 ins. and upwards in another system lying off the south of Italy. Lowest, 29·4 ins. and less in a depression lying off the north-west of Scotland. Depression subsequently moving away to the northward, but new disturbance beginning to approach the Irish coasts, and barometer falling slightly in the extreme west of our Islands.

Judd & Co Ltd Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

Tuesday, 1st December.

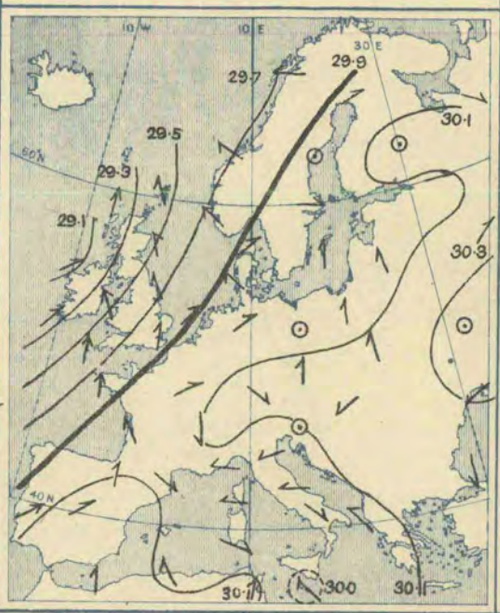
Temperature and Weather.

8 a.m.

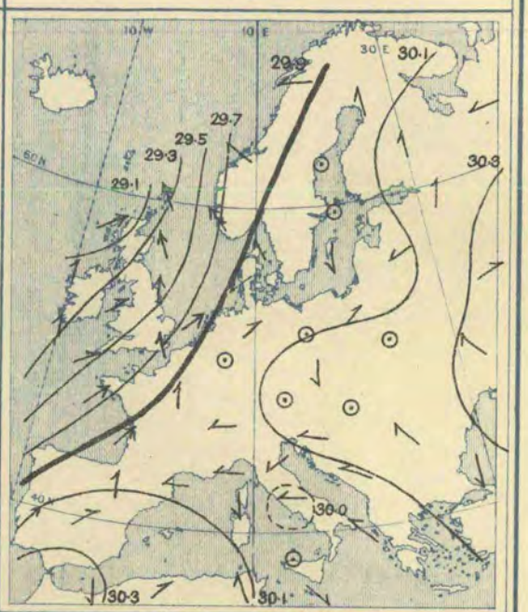


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning dull and rainy in the west and north of our Islands, fair in the east and south-east. Varying greatly at the Continental stations, but mostly cloudy, with fog over Denmark, the Netherlands, France, and some parts of Sweden and Germany, rain at Berlin, Rome, and Algiers, and snow at Ulcaborg. Rainy weather spreading eastwards later to all parts of the United Kingdom, and also to the west and north of France, Italy, and some parts of Algeria; amounts large at many of our western and southern stations.

Temperature highest, 68° at Malta, 61° at Brindisi, and 57° at Lisbon and La Calle: above 50° at the Mediterranean and Adriatic stations generally, as well as in the extreme south-west of our Islands and the north-west of France. Below the freezing point over the greater part of Sweden, Russia, Austria, and south Germany, the lowest readings being 13° at Archangel, 23° at Hernösand and Kiev, and 25° at Memel. Subsequently rising to 50° or a little more in many parts of the United Kingdom, and 57° at Nairn, to 60° or more at several of the Italian and Algerian stations, and to 68° at Palermo.

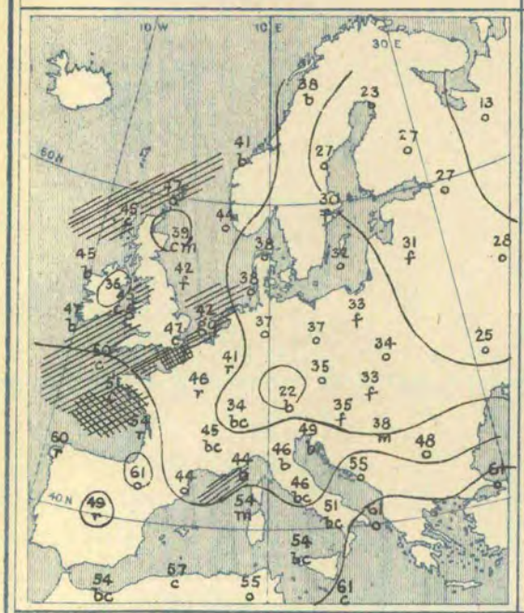
Wind strong from the Southward in the west and extreme north of our Islands, with a gale in Ireland, moderate from the same quarter in the east and south-east of Great Britain, and light in France. South-Easterly over the greater part of Norway, Denmark, and the Baltic, light and variable over Russia and central Europe; Easterly in Italy, South-Easterly in Algeria, South-Westerly in Spain. Southerly gale setting in later on the Scotch coasts and wind blowing very strongly in the Channel, but subsiding considerably in Ireland.

Barometer highest, 30·4 ins. and upwards in an anticyclone lying over the south of Russia; 30·2 ins. and upwards in another system lying over the south of Portugal. Lowest, 29·1 ins. and less in a large and rather deep depression lying to the westward of Ireland; gradients steep over the west and north of our Islands. Depression subsequently moving northwards, and barometer rising in west, but secondary disturbance forming over England. Anticyclone over southern Russia decreasing somewhat in height during the day.

Wednesday, 2nd December.

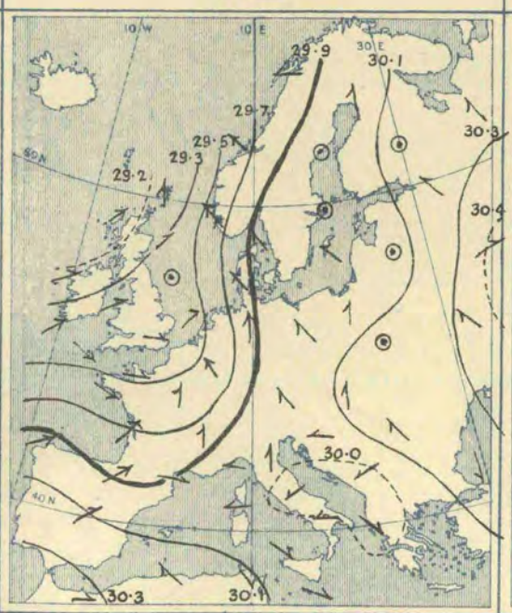
Temperature and Weather.

8 a.m.

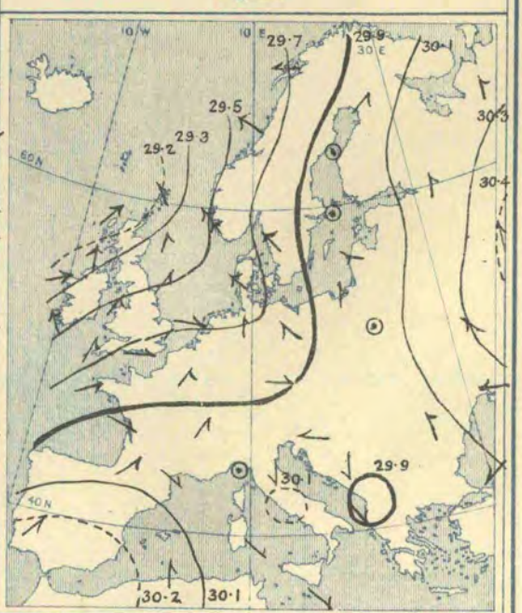


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine in the west and north of the United Kingdom and in the west of Norway, as well as in Italy and the extreme south of France. Dull in most other parts of Europe, with fog over the Baltic, rain in the north of England and many parts of France and Spain, and snow in Finland. Considerable improvement taking place later over England, but rain setting in over Ireland at night. Rain falling during day in Norway, Denmark, Germany, and Italy.

Temperature highest, 61° at Biarritz, Brindisi, Malta, and Constantinople, 60° at Corunna, and 57° at Algiers; above 50° at most of the Mediterranean and Adriatic stations, and just reaching that point at some of the Channel stations. Lowest, (1) 13° at Archangel, 22° at Haparanda, 25° at Kiev, and 26° at Kharkov; (2) 22° at Munich; (3) 35° at Nairn and 36° at Parsonstown. Rising during day to 50° or more in many parts of the United Kingdom, and reaching 57° at Parsonstown. Exceeding 60° in Spain, Algeria, and the south of Italy, but remaining below 40° at several of the German stations.

Weather Southerly or South-Westerly in the north and extreme west of our Islands, with a moderate gale in the Hebrides. Moderate or fresh from the Westward or South-Westward in the Channel and south of England. Light from the South-Eastward over Germany, the Netherlands, and the north of England. Strong from the same quarter on the eastern shores of the North Sea, with a gale at Skudesnaes. Light and variable over Russia; Easterly at several of the Austrian and Italian stations; variable in Algeria, South-Westerly over Spain and the west of France. Subsequently backing to the Southward or South-Eastward in Ireland and increasing to a gale.

Barometer highest, 30·4 ins. and upwards in a large anticyclone lying over Russia, 30·3 ins. and upwards in another system lying over Morocco. Lowest, 29·2 ins. and less in a depression off the north-west of Scotland, 29·4 ins. and less in a large secondary system lying over England. Both systems moving away north-eastwards during day, but larger and much deeper disturbance approaching our western coasts in evening.

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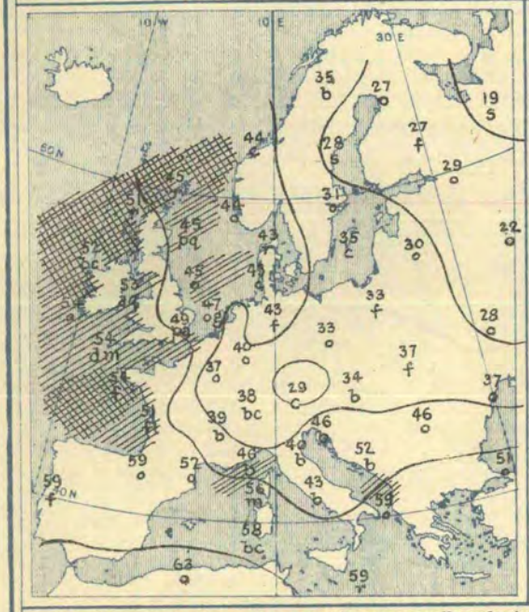
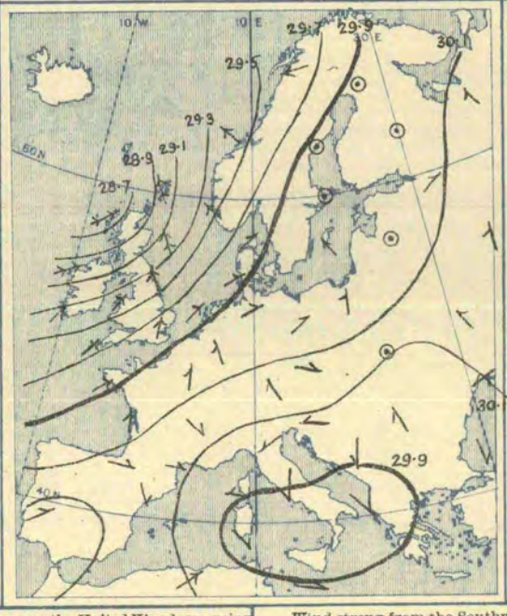
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 3rd December.

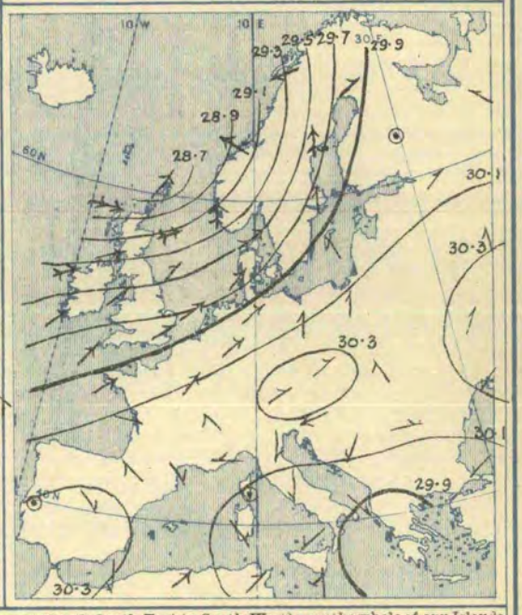
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather dull over the greater part of Europe; squally and rainy over the United Kingdom; rainy also in Denmark and at Malta. Fog prevalent over Holland, north Germany, Poland, and central Ireland; snow falling at Archangel and Hernösand. Sky clearing later at several of the Irish and Scotch stations, but thunder and lightning occurring in the north of Ireland at night. Rain falling during day at the Scandinavian stations.

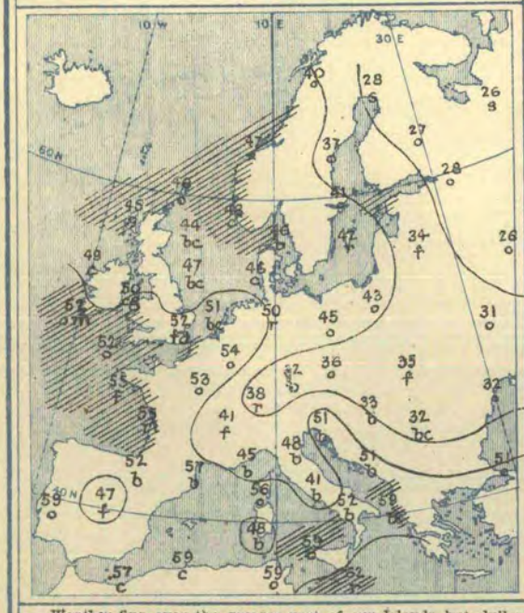
Temperature highest, 63° at Algiers, and 59° at Biarritz, Lisbon, Brindisi, and Malta; above 55° at most of the Mediterranean stations, and also on the coasts of the Spanish Peninsula; above 50° in all the more western and southern parts of the United Kingdom, and as high as 56° at Parsonstown. Lowest, 19° at Archangel, 20° at Haparanda, 22° at Moscow, 27° at Kuopio, and 28° at Hernösand, Helsingfors, and Kiev; below the freezing point in most parts of Sweden and Russia, and also at some of the German stations. Rising during day to 55° or more in many parts of the United Kingdom, and reaching 59° at York and Liverpool; exceeding 60° in the south of France, and exceeding 65° in Algeria and the south of Italy.

Wind strong from the Southward (South-South-East to South-West) over the whole of our Islands, with a hard gale in Scotland and the north of Ireland; light or moderate from the same quarter over Denmark, Germany, and the greater part of France; strong from South-East in the west of Norway. Light and variable over Russia and Austria, moderate from North or North-West over Italy. Veering later to the South-Westward or Westward in most parts of the United Kingdom; gale continuing in Scotland and extending to Scandinavia, but moderating in Ireland.

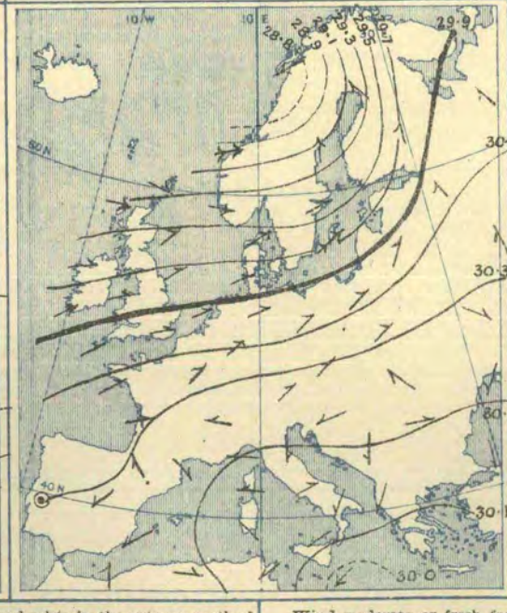
Barometer highest, 30·4 ins. and upwards in an anticyclone lying over the southern parts of central Russia; 30·2 ins. and upwards over the south of Spain—the two systems were united by a "col" stretching across the southern parts of France and Germany and the north of Austria. Lowest, 28·7 ins. and less in a deep depression, the centre of which lay to the westward of the Hebrides. Gradients steep in the west and north of the United Kingdom. Depression subsequently travelling north-eastwards and barometer rising in nearly all parts of our Islands.

Friday, 4th December.

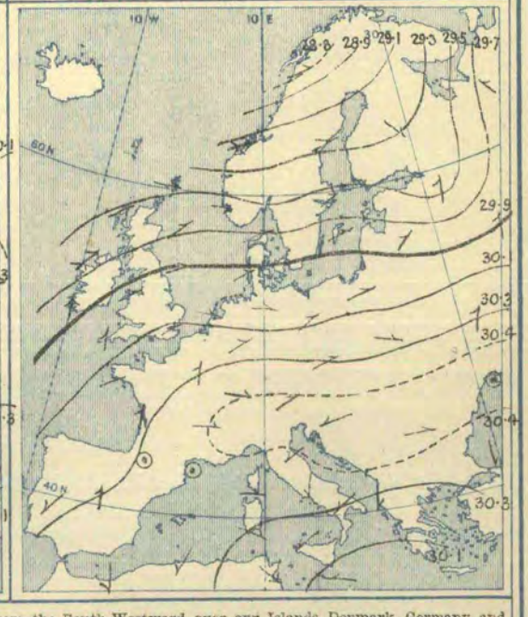
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the greater part of our Islands, but dull and misty in the extreme south of England. Fine also over Austria, Italy, and the south of France, but cloudy or overcast elsewhere, with rain at one or two of the Norwegian, German, and French stations, and snow over Lapland and northern Russia. Dull weather subsequently spreading eastwards over the United Kingdom, and rain falling in many places. Rain also occurring in Germany and snow in many parts of Russia.

Temperature highest, 62° at Malta, and 59° at Lisbon, Brindisi, Palermo, Algiers, and La Calle; above 55° at many of the Mediterranean stations, and above 50° over a considerable portion of England and France. Lowest, 26° at Archangel, Ulcaborg, and Moscow, 27° at Kuopio, and 28° at Haparanda, St. Petersburg, and Kharkov; below the freezing point in most parts of Russia, and also at some of the Austrian stations. Subsequently rising to 55° or more in the south and south-east of England, and to 60° or more over Spain, Algeria, and the southern parts of France and Italy, the highest European reading of all being 68° at Barcelona and Palermo.

Wind moderate or fresh from the South-Westward over our Islands, Denmark, Germany, and France, strong to a gale from the same quarter or from West over the southern parts of Scandinavia; strong from South or South-East over Finland and the north of Scandinavia. Light from the North-Eastward over the south of Russia, and also in Italy. Variable in Spain and Algeria. Subsequently backing to the Southward in the west of Ireland and increasing to a moderate or fresh gale. Veering to the South-Westward over Finland and the north of Scandinavia.

Barometer highest, 30·3 ins. to 30·4 ins. or a little more in a long band stretching from the south of Russia across Austria and the north of Italy, and covering the greater part of France and Spain. Lowest, 28·8 ins. and less in a deep depression lying off the north-west of Norway. Gradients steep over Scandinavia and Finland. Depression subsequently travelling away to the north-eastward but new disturbance beginning to approach Ireland in evening.

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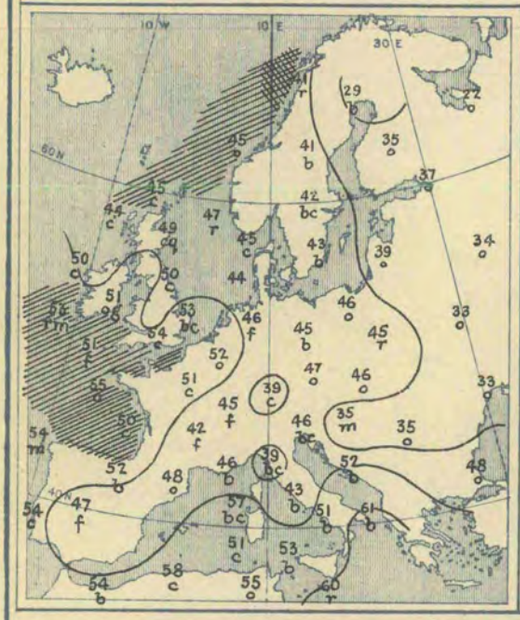
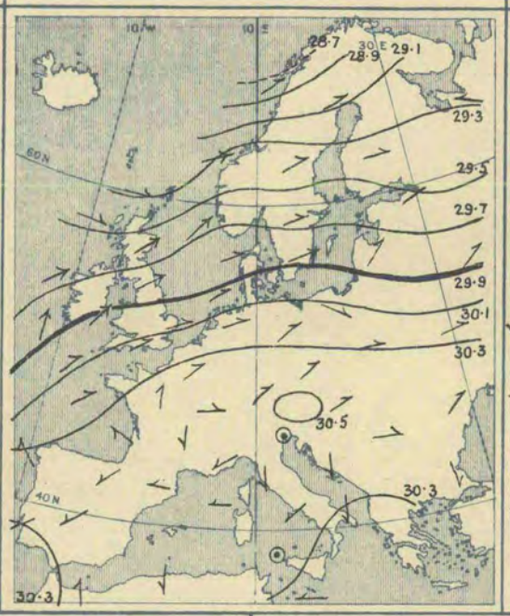
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 5th December.

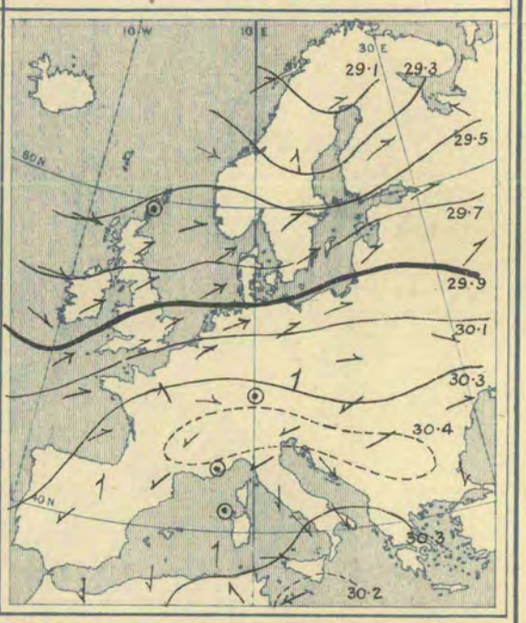
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather cloudy or overcast in all but the southern countries, with fog at some of the French and German stations, as well as over the western parts of the English Channel. Rain falling in Ireland and the west of Scotland, as well as at Bodö, Prague, and Warsaw. Slight rain falling during day in nearly all parts of the United Kingdom and large amounts in the south of Ireland. Fog and rain appearing over the south of Russia in evening.

Temperature highest, 61° at Brindisi, 60° at Malta, 58° at Algiers, and 57° at Barcelona and Tunis; above 50° over the Mediterranean generally, as well as in all the more southern parts of the United Kingdom. Lowest, 22° at Archangel, 28° at Kharkov, 29° at Haparanda, 32° at Ulcaborg, and 33° at Kiev and Vienna; below 40° in all parts of Russia and Austria, as well as in south Germany. Rising during day to between 55° and 58° at most of the English stations, and to 60° or more in several parts of France, Spain, and Italy; maximum readings very little above 50° in Germany.

Wind Southerly or South-Westerly over our Islands, with a moderate gale in the south of Ireland. South-Westerly or Westerly over the greater part of northern and central Europe; moderate or fresh in force generally, but strong to a gale in the west of Norway. Light from the Northward or North-Eastward over the more southern countries, but variable in Algeria. Subsequently veering to the Westward on the west coasts of Ireland and Scotland, but gale in south of Ireland subsiding. No important change occurring at Continental stations.

Barometer highest, 30·4 ins. and upwards in a broad band stretching from east to west over nearly the whole of southern and eastern Europe. Lowest, 28·8 ins. and less in a deep depression lying off the coast of Finmark: 29·3 ins. and less in a secondary disturbance lying to the northward of Scotland. Both systems travelling away to the north-eastward during day, but shallow secondary depressions travelling eastwards across our Islands and barometer changing rather irregularly.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

At the commencement of the week the distribution of barometrical pressure was very irregular, for while the lowest readings were found in a depression lying off the north of Scotland, another well-defined disturbance was reported over the Baltic Provinces, and a shallower system over Italy. Three distinct cyclonic circulations were, therefore, shown in the winds, the Southerly current on the eastern shores of the North Sea and the North-Westerly wind over the Baltic being strong to a gale in force. The depressions over northern Europe and Italy soon dispersed, however, and on the 30th November and 1st December a large anticyclone appeared over Russia, while another high-pressure system advanced over Spain from the South-Westward. The two anticyclones ultimately became united, and formed one large system, which covered the whole of southern and eastern Europe, the winds in those regions being, therefore, light and variable and the weather fine. Over the north-western and northern countries the conditions were influenced by a series of large depressions which travelled from the Atlantic past the extreme north of Scotland to the northern parts of Scandinavia. The prevailing winds were, therefore, South-Westerly (Southerly to Westerly) with mild damp weather; and on the 3rd December, when a deep disturbance skirted our northern coasts, hard gales were experienced in all the more western and northern parts of the United Kingdom.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 284.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	7·2	?	14	?	NEWQUAY	18·6	?	33	?
OSWALDKIRK (Yorkshire)	5·3	?	10	?	TORQUAY	14·3 *	?	25 *	?
WORKSOP	9·0	+ 1·2	17	+ 1	ARLEY COTTAGE (County Cavan)	11·1	?	21	?
THURCASTON (Leicestershire)	11·8	+ 5·0	22	+ 8	GUERNSEY	?	?	?	?
EASTBOURNE	6·1	?	11	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
By whom Subscriptions, payable in advance, can be received.
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VOL. VIII. No. 49.] *Third Series.* WEEK ENDING SATURDAY, 12TH DECEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 290.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	Accumulated. From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	50	19	41·3	31·3	36·5	2 below.	0	− 7	39	+11	2064	+204	798	+110
1. SCOTLAND, EAST	53	21	41·5	31·9	36·9	1 below.	0	− 9	36	+ 1	2282	− 63	893	+156
2. ENGLAND, N.E.	54	32	46·5	37·3	42·1	3 above.	20	+10	13	−15	2438	− 77	701	+ 88
3. ENGLAND, EAST	56	31	49·5	38·0	44·0	6 above.	31	+19	11	−18	2875	− 37	789	+ 84
4. MIDLAND COUNTIES	55	28	49·5	37·8	43·9	6 above.	31	+19	12	−21	2776	− 74	788	+ 77
5. ENGLAND, SOUTH	56	30	51·6	40·5	46·3	6 above.	36	+18	4	−21	3106	− 80	620	+103
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	52	30	46·3	37·0	41·9	2 above.	22	+10	12	−10	2539	+102	570	+ 51
7. ENGLAND, N.W.	54	28	47·9	39·1	43·6	4 above.	23	+10	8	−12	2694	+ 46	522*	+ 24
8. ENGLAND, S.W.	55	29	51·0	40·7	46·1	4 above.	34	+14	4	−11	2880	−122	476	+100
9. IRELAND, NORTH	54	29	46·4	37·1	41·9	2 above.	12	− 3	21	− 1	2617	+ 13	518	+ 58
10. IRELAND, SOUTH	56	28	49·6	38·4	44·2	2 above.	31	+10	10	− 9	2935	− 40	406*	+ 55
— CHANNEL ISLANDS	56	37	53·9	46·1	50·1	5 above.	57	+22	0	− 4	3451	− 3	167	+ 35

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 290.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	7	19	6 more.	228	− 1	49·8	+ 3·8	6	?	12	?	1139	− 2	27	0
1. SCOTLAND, EAST	5	13	7 more.	175	−14	29·1	− 1·3	11	+ 3	23	+ 4	1283	− 40	30	− 1
2. ENGLAND, N.E.	6	16	10 more.	172	− 3	24·0	− 1·4	14	+ 7	27	+13	1197	− 21	28	− 1
3. ENGLAND, EAST	6	10	5 more.	187	+14	25·6	+ 0·8	14	+ 4	27	+ 9	1395	− 88	33	− 2
4. MIDLAND COUNTIES	7	16	11 more.	183	+13	29·4	+ 1·9	11	+ 2	21	+ 5	1316	− 9	31	0
5. ENGLAND, SOUTH	7	15	9 more.	180	+15	32·3	+ 5·8	13	+ 3	23	+ 6	1508	+ 72	36	+ 2
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	7	32	20 more.	193	− 5	46·2	− 1·1	10	+ 2	20	+ 7	1349	+ 45	32	+ 1
7. ENGLAND, N.W.	7	29	21 more.	175	− 9	36·5	+ 3·1	7	0	13	0	1229	− 61	29	− 1
8. ENGLAND, S.W.	7	23	13 more.	188	− 4	42·3	+ 3·6	10	− 2	17	− 4	1571	+ 16	37	0
9. IRELAND, NORTH	7	21	13 more.	212	− 3	33·6	− 1·3	7	− 1	14	− 4	1320	+110	31	+ 2
10. IRELAND, SOUTH	7	32	23 more.	192	− 5	39·0	+ 2·1	9	− 2	17	− 4	1450	+ 45	34	+ 1
— CHANNEL ISLANDS	7	21	12 more.	189	−16	35·3	+ 3·4	19	+ 7	33	+11	1956	+132	46	+ 3

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather during the week was extremely unsettled and changeable, with frequent and heavy falls of rain, alternated, however, by fine, clear intervals. A good deal of snow fell over all our more northern and north-western districts towards the close of the week.

Temperature was a little below the mean in the north and east of Scotland, but in all other districts it was again above, the excess over eastern, southern, and central England being as much as 6°. The highest of the maxima were recorded either on the 9th or 10th, and ranged from 56° in the south and east of England, the south of Ireland, and the Channel Islands, to 50° in Scotland N. The lowest of the minima, which were registered during the earlier part of the week in Scotland and towards its close elsewhere, varied from 19° in Scotland N. and 21° in Scotland E., to 29° or 30° in most other districts and to 37° in the Channel Islands.

Rainfall exceeded the mean in all districts, the fall in most cases being nearly three times the normal.

Bright Sunshine was more prevalent than during the previous week in the "Wheat-producing Districts," as well as in Scotland W. and the Channel Islands, but shows a slight decrease elsewhere. The percentage of the possible duration ranged from 12 in Scotland N. and from 13 to 17 in most of the western districts, to 27 in England E. and N.E. and to 33 in the Channel Islands.

Barometer and Wind.—During the whole of this period a series of deep depressions passed north-eastwards over the western and northern parts of our area, causing frequent gales, generally from between South and West, in all parts of the Kingdom. The system whose centre lay off the north of Scotland on the 10th was exceedingly large and deep, the barometer falling to 27·93 ins. at Sumburgh Head. It caused strong to very severe gales in nearly all parts of north-western Europe.

NOTE.—In consequence of the variable amount of sunshine recorded at the stations in Scotland N. and the only "Mean" available being for Stornoway, it is impossible to give any "Difference from the Mean" for this week.

* This value has been altered owing to the receipt of further information.

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II.– DATA from which the SUMMARY on page 289 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ℌ	44	30	41·9	34·1	38·2	— 1·2	0	27	7	1·17	+0·21	*	*	*	*
	Stornoway	47	27	41·0	31·0	36·2	— 2·9	0	41	6	1·92	+0·69	9·4	+ 3·6	21	+12
	Wick	46	25	41·9	31·3	36·9	— 3·0	0	36	7	1·50	+0·81	*	*	*	*
	Lairg ℌ	42	19	38·4	27·6	33·3	— 2·9	0	61	7	1·10	+0·22	*	*	*	*
	Glencarron ℌ	45	25	40·5	29·9	35·2	— 2·7	0	48	7	2·70	+0·55	*	*	*	*
	Fort Augustus ℌ	46	25	40·9	31·7	36·5	— 1·7	0	39	7	1·50	+0·48	4·3	?	9	?
	Fort William ℌ	50	29	44·3	33·8	39·3	— 0·3	6	32	7	3·17	+1·17	3·0	?	6	?
1. SCOTLAND, E.	Nairn	45	26	39·9	30·1	35·2	— 2·7	0	48	6	0·53	+0·06	*	*	*	*
	Aberdeen	46	28	41·3	33·9	37·8	— 0·3	0	29	5	0·76	+0·06	18·4	+ 9·6	39	+19
	Braemar ℌ	45	21	38·2	27·0	32·8	— 2·1	0	64	5	1·11	+0·41	5·2†	? †	11†	?†
	Ochtertyre ℌ	48	27	42·4	31·0	36·9	— 0·1	1	40	6	1·86	+0·.2	*	*	*	*
	Leith	53	32	45·3	35·7	40·7	+ 1·2	9	26	5	1·61	+1·21	*	*	*	*
	Marchmont ℌ	49	29	41·7	33·9	38·0	+ 0·9	0	28	5	2·16	+1·43	9·0	?	19	?
2. ENGLAND, N.E.	Alnwick Castle	?	?	?	?	?	?	?	?	6	2·79	+2·08	*	*	*	*
	Durham	52	32	45·8	36·3	41·2	+ 3·7	11	24	6	1·49	+0·78	17·7	+ 7·9	35	+16
	Shields	48	33	45·3	37·3	41·3	+ 2·2	9	19	6	1·92	+1·32	*	*	*	*
	Scarborough ℌ	50	32	44·9	37·4	41·3	+ 1·9	8	19	6	1·38	+0·74	*	*	*	*
	York	54	33	49·0	37·3	43·4	+ 5·4	30	13	6	1·53	+1·04	11·3	+ 5·7	22	+11
	Spurn Head	52	35	47·4	38·4	43·1	+ 3·3	23	10	6	0·69	+0·11	*	*	*	*
3. ENGLAND, E.	Hillington ℌ	54	31	48·6	37·0	43·0	+ 5·2	28	14	6	1·03	+0·48	14·0	+ 5·0	26	+ 9
	Yarmouth	54	32	48·3	38·0	43·4	+ 4·3	31	11	6	0·87	+0·29	*	*	*	*
	Geldeston	56	32	49·7	38·3	44·2	+ 5·5	31	10	7	1·03	+0·47	15·4	+ 4·4	29	+ 9
	Cambridge	56	32	51·0	38·4	45·0	+ 7·0	36	10	6	1·01	+0·58	14·0	+ 4·2	26	+ 8
	Rothamsted	54	31	50·1	38·3	44·4	+ 6·2	32	10	6	1·27	+0·72	13·5	?	25	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	54	32	47·6	38·1	42·1	+ 4·0	25	17	7	1·58	+1·10	*	*	*	*
	Loughborough	55	35	50·0	39·6	45·0	+ 6·7	31	7	7	1·33	+0·83	*	*	*	*
	Stamford (Ketton Hall)	55	31	50·1	36·4	43·5	+ 6·2	34	16	7	0·95	?	*	*	*	*
	Cheadle ℌ	52	32	47·9	36·6	42·5	+ 5·3	26	15	7	2·48	+1·71	*	*	*	*
	Churchstoke ℌ	52	31	49·1	37·9	43·7	+ 5·2	29	11	7	2·61	+1·39	12·3	+ 4·1	23	+ 7
	Hereford ℌ	54	30	49·5	39·3	44·6	+ 5·4	30	8	7	1·37	+0·83	*	*	*	*
	Cirencester	54	28	51·4	36·1	44 1	+ 6·1	39	17	6	1·61	+0·96	9·8	+ 1·0	18	+ 1
	Oxford	54	33	50·3	40·0	45·4	+ 6·5	32	6	6	1·11	+0·62	12·0	+ 3·8	22	+ 6
5. ENGLAND, S.	London	55	30	51·6	39·3	45·7	+ 5·7	37	8	6	1·36	+0·88	7·7 †	+ 3·1†	14†	+ 5†
	Strathfield Turgiss ℌ	55	30	51·1	39·0	45·3	+ 6·8	36	8	6	1·56	+1·06	*	*	*	*
	Dungeness	54	30	52·0	42·0	47·2	+ 6·3	36	0	6	0·71	+0·03	*	*	*	*
	Hastings (St. Leonards)	53	33	51·4	39·9	45·9	+ 5·0	36	6	7	1·34	+0·66	15·5	+ 3·3	28	+ 5
	Southampton	55	31	52·3	40·8	46·8	+ 6·3	39	3	7	1·88	+1·19	13·3	+ 3·2	24	+ 5
	Hurst Castle	56	35	52·3	42·6	47·6	+ 5·8	39	0	7	1·63	+1·01	*	*	*	*
	Stowell ℌ	53	32	50·4	39·9	45·4	+ 6·1	33	6	7	1·77	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	51	30	46·3	35·0	40·9	+ 0·3	12	29	7	3·57	+1·43	*	*	*	*
	Glasgow	49	32	43·9	35·8	40·0	+ 1·6	5	24	7	2·33	+1·43	6·0	+ 2·7	13	+ 6
	Ardrossan	51	35	47·6	39·3	43·6	+ 2·9	23	8	7	2·00	+1·17	*	*	*	*
	Glenlee ℌ	52	30	45·7	36·2	41·1	+ 3·4	10	24	7	4·15	+2·73	*	*	*	*
	Douglas (Isle of Man)	51	33	48·2	38·8	43·7	+ 2·1	25	9	6	4·16	+3·12	13·4	+ 3·1	26	+ 7
7. ENGLAND, N.W.	Newton Reigny	46	32	43·3	36·3	39·9	+ 2·6	4	22	7	3·81	+3·02	7·7	+ 1·5	15	+ 2
	Stonyhurst	51	33	47·0	38·0	42·7	+ 4·2	22	11	7	3·73	+2·65	4·6	− 1·5	9	− 4
	Blackpool ℌ	53	28	49·5	36·9	43·5	+ 4·1	32	14	?	?	?	4·0	− 2·2	8	− 5
	Manchester	52	33	48·0	38·0	43·2	+ 5·0	25	11	7	3·09	+2·29	*	*	*	*
	Liverpool Obsy. (Bidston)	53	37	48·3	40·7	44·7	+ 4·4	24	4	7	1·50	+0·90	*	*	*	*
	Llandudno ℌ	54	35	50·0	41·4	45·9	+ 3·6	30	2	6	2·24	+1·49	10·3	+ 4·3	20	+ 8
	Holyhead	52	39	48·9	42·1	45·6	+ 2·1	25	0	6	3·01	+2·14	*	*	*	*
8. ENGLAND, S.W.	Llandovery	53	29	49·4	36·6	43·3	+ 2·2	32	15	7	3·84	+2·64	*	*	*	*
	Pembroke	53	37	50·9	42·6	46·9	+ 2·6	34	0	7	2·71	+1·80	6·9	− 3·3	13	− 6
	Arlington (N. Devon)	52	31	49·6	39·1	44·6	+ 3·6	30	8	7	2·66	+1·32	*	*	*	*
	Cullompton ℌ	55	30	51·6	39·9	46·0	+ 5·5	37	6	7	1·58	+0·76	7·0	− 0·4	13	− 1
	Falmouth	54	37	52·1	42·5	47·5	+ 2·6	39	0	7	2·42	+1·23	11·8	− 0·2	21	− 1
	Plymouth	54	34	52·7	43·0	48·0	+ 5·0	42	0	7	1·75	+0·90	8·1	− 3·2	14	− 7
	Prawle Point	53	36	51·0	41·4	46·4	+ 3·1	33	2	7	1·30	+0·44	*	*	*	*
9. IRELAND, N.	Malin Head	50	34	45·9	39·0	42·6	+ 2·3	17	8	6	1·60	?	*	*	*	*
	Londonderry	51	32	45·0	35·8	40·6	+ 0·6	8	25	7	2·33	+1·43	*	*	*	*
	Mullaghmore	52	36	47·1	40·4	43·9	+ 1·1	20	4	7	1·55	+0·51	*	*	*	*
	Belmullet	54	33	48·3	39·7	44·2	− 0·1	25	6	7	2·17	?	*	*	*	*
	Markree Castle	53	29	46·4	35·8	41·3	+ 2·0	12	26	7	1·91	+1·13	4·1	− 3·9	8	− 9
	Brookeborough	51	29	44·8	34·7	40·0	+ 1·8	8	29	7	2·53	+1·58	*	*	*	*
	Armagh	52	31	46·8	35·8	41·5	+ 2·8	13	26	7	2·47	+1·82	9·2	+ 0·1	18	0
	Donaghadee	47	32	45·1	37·1	41·3	0·0	9	21	7	2·08	+1·42	*	*	*	*
	Edgeworthstown	50	33	47·9	35·6	42·0	+ 2·3	17	18	6	2·40	+1·65	*	*	*	*
10. IRELAND, S.	Dublin	54	34	49·6	38·5	44·3	+ 2·7	31	10	7	2·32	+1·74	15·1	+ 3·4	28	+ 6
	Parsonstown	53	31	47·9	35·7	42·0	+ 2·0	17	18	7	2·76	+2·06	9·2	− 0·6	17	− 3
	Kilkenny	52	28	47·7	35·1	41·7	+ 0·7	16	30	7	3·01	+2·33	*	*	*	*
	Waterford	52	30	49·6	38·0	44·0	+ 1·0	31	11	7	3·59	+2·64	*	*	*	*
	Roche's Point	53	35	50·6	40·1	45·6	+ 1·5	33	5	6	3·30	+2·19	*	*	*	*
	Valencia	55	37	51·6	41·7	46·9	+ 1·6	36	1	7	3·76	+2·44	3·5	− 6·4	6	−13
	Killarney	56	31	50·8	37·7	44·5	+ 2·5	36	12	7	3·33	?	*	*	*	*
	Foynes	53	34	48·7	40·0	44·5	+ 2·0	26	6	7	3·39	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	56	42	53·4	46·6	50·1	+ 3·1	57	0	7	2·39	+1·50	*	*	*	*
	Jersey	56	37	54·3	45·6	50·1	+ 5·8	57	0	7	1·79	+0·89	19·0	+ 7·0	33	+11

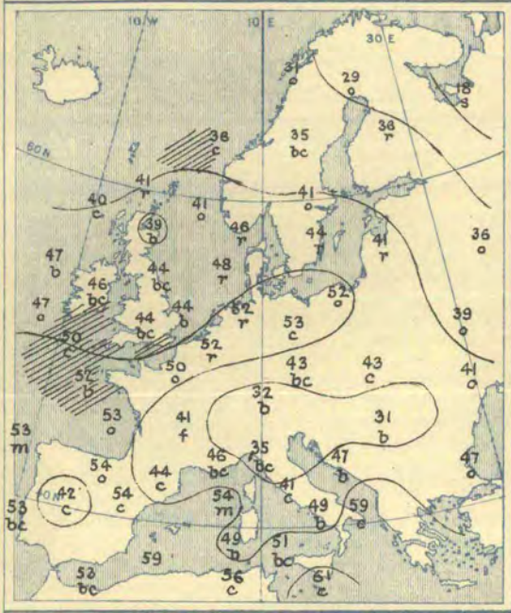
Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

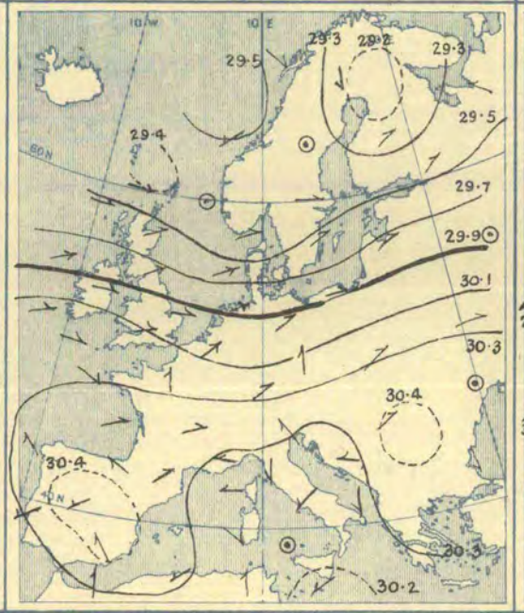
† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 6th December.

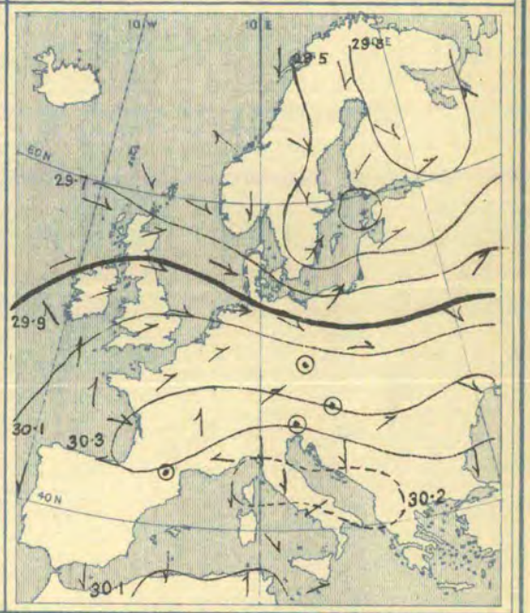
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine and bright over the greater part of the United Kingdom, showery on our extreme north and north-west coasts. Fine also over southern Europe and Algeria, but dull elsewhere, with fog at some of the French and German stations, and with rain in Denmark, the south of Scandinavia, and many parts of Russia. Subsequently becoming dull and unsettled in the south-west of our Islands, with heavy rain at night, but continuing fine over England till next morning.

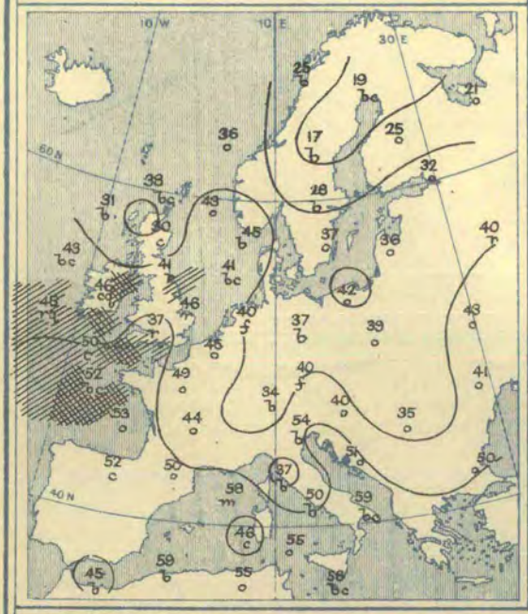
Temperature fallen considerably in our Islands, but risen at most of the Continental stations. Morning readings highest, 61° at Malta, 59° at Brindisi and Algiers; 56° at La Calle: above 50° over the central and southern parts of the Mediterranean generally, as well as on the French and Spanish coasts. Lowest, (1) 18° at Archangel, 29° at Haparanda, and 31° at Bodö; (2) 31° at Hermanstadt, 32° at Munich, and 36° at Vienna; (3) 39° at Aberdeen. Subsequently rising above 60° over Algeria, Malta, and southern Italy, to 50° and more over France and southern parts of the United Kingdom, and reaching 56° at Jersey, but remaining below 45° in the extreme north.

Wind moderate or fresh from the Westward over our Islands, and from the South-Westward over Denmark, Germany, and the Baltic; calm or light and variable in Scandinavia. Light from the Northward in Italy and from the North-Eastward or Eastward in Spain and the south of France. Variable over Austria and the south of Russia, South-Easterly or Southerly in Algeria. Subsequently backing to South-East and South on our western coasts and increasing to a gale at night from those quarters in the south of Ireland and the south-west of England.

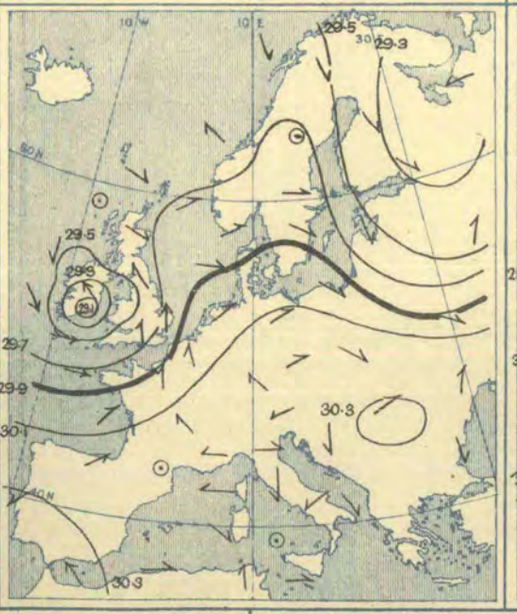
Barometer highest, 30·4 ins. and upwards over central Spain, and also over Wallachia, and exceeding 30·3 ins. over the greater part of southern and eastern Europe. Lowest, 29·2 ins. and upwards in a depression lying over Lapland; 29·4 ins. and less in two other systems lying respectively off the north of Scotland and over the extreme south of Norway. Two last-mentioned disturbances subsequently passing away to the eastward, but new depression approaching the south-west of our Islands in evening.

Monday, 7th December.

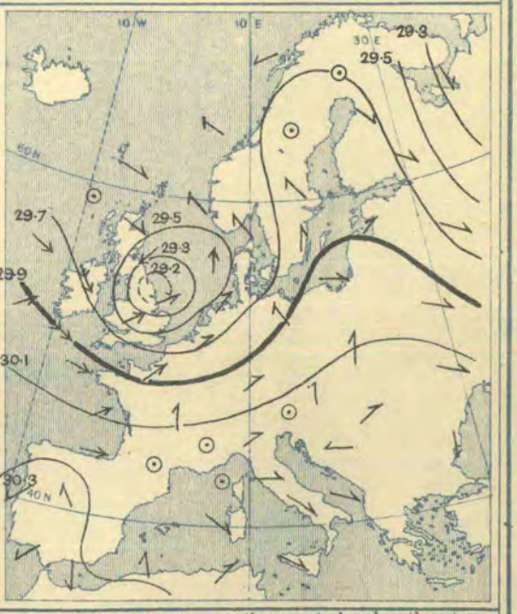
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright at most of the Mediterranean stations, as well as over the south-east of France, south Germany, and Scotland; dull and unsettled elsewhere, with rain in many places; especially unsettled over Ireland and England. Rain later nearly all over the British Isles, the north of France, and Germany; very heavy falls locally at Limoges and North Shields—hail at Oxford. Remaining dry, however, at the Scandinavian stations.

Temperature changing very frequently and considerably—fallen rapidly in Scotland and over Finland and the Gulf of Bothnia. Morning readings below 60° at all stations, and below 50° over nearly the whole of the United Kingdom. Lowest, (1) 17° at Hernösand, 19° at Uleaborg, 21° at Archangel, 25° at Kuopio, 30° at Hangö; (2) 28° to 30° over the north-eastern parts of Scotland, 34° at Parsonstown. Falling over Great Britain later and sharp frost occurring at many places in the night, but maxima of 60° to 68° occurring on the Algerian coasts, at Brindisi, and Cagliari.

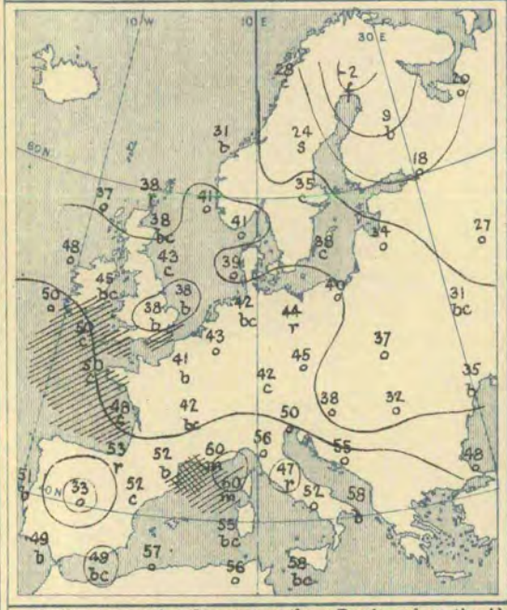
Wind in morning very light and variable over south-western, southern, central, and south-eastern Europe, and also on the eastern shores of the North Sea; moderate to fresh from North-West over Finland and the Baltic Provinces, Westerly to Southerly over central Russia. Well-marked cyclone over the British Islands—the wind blowing a very strong gale from between North-West and South-West on our south-western coasts, and a strong breeze from South and South-East over England, and from East in the north of Ireland. Severe Westerly gales spreading Eastwards over the Channel and southern half of England later, and Southerly gales setting in over Denmark, while South-Easterly breezes prevailed in Sweden and Norway.

Barometer highest, 30·3 ins. to 30·1 ins. over the whole of south-western, southern, south-eastern, and central Europe. Lowest, 29·3 ins. and less in a large depression over northern Russia, and 29·1 ins. in a deep but not large system over Ireland and England. Russian disturbance travelling north-eastwards rapidly later, while that over England travelled fast to the eastward and reached the North Sea by evening; barometer rising very quickly in its rear.

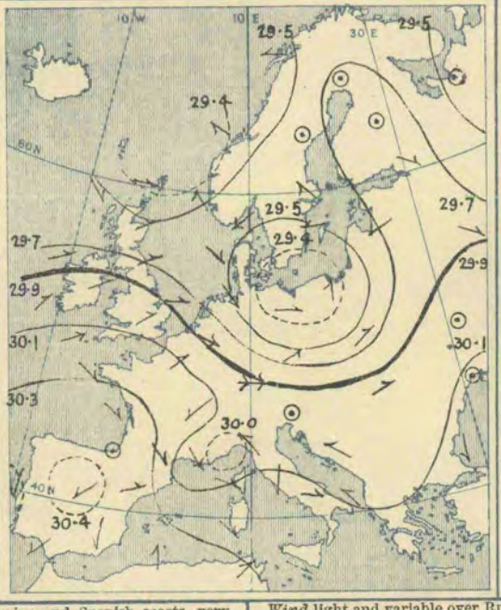
Judd & Co Lt Lith. 73 & 75, Farringdon Rd & Doctors Commons

Tuesday, 8th December.

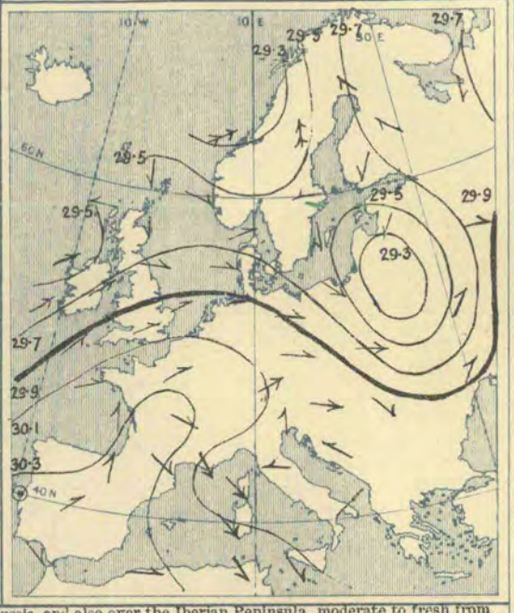
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine over southern Russia and on the Algerian and Spanish coasts, very changeable and unsettled elsewhere, though temporarily fine over the British Islands. Rain later over Germany and France, and in all parts of the United Kingdom; snow over central Russia, Scandinavia, and the north of Scotland.

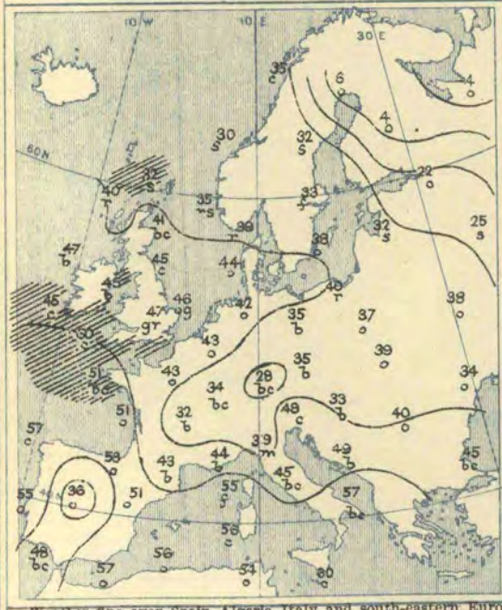
Temperature fallen somewhat over Russia, France, and England, risen over Germany, Scotland, and Ireland, and changing very fitfully all over western Europe. Morning readings exceeding 50° at many of the Spanish and Mediterranean stations, and touching that value at Lorient, Scilly, and Valencia Island, and exceeding 40° over central Europe and many parts of our Islands; lower elsewhere. Lowest, −2° Fahr. at Haparanda, +8° at Uleaborg, 9° at Kuopio, 18° at St. Petersburg, 24° at Hernösand, 27° at Moscow, 28° at Bodö, and also at Odessa. Rising later to 50° and more in the south-west and west of the British Islands, to 57° in the south-west of France and to 61° at Lisbon and still higher over Algeria and the southern parts of Italy.

Wind light and variable over Russia, and also over the Iberian Peninsula, moderate to fresh from the Westward (North-West to South-west) over the British Islands; two well-marked cyclonic circulations prevalent—one over north Germany and the Baltic, another over the south-east of France and the north of Italy, with neighbouring parts of the Mediterranean. Backing to the Southward on our western coasts later, and rising to a moderate gale, while strong North-Westerly wind set in over north Germany.

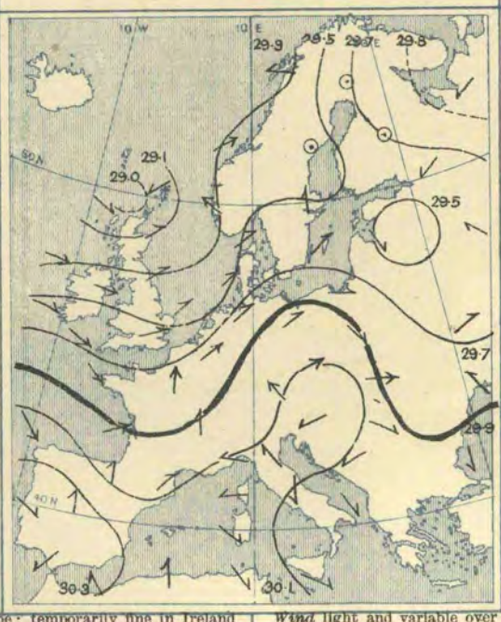
Barometer highest, 30·4 ins. and more to 30·2 ins. over south-western, and 30·1 ins. and more to 30·0 ins. over south-eastern Europe. Lowest, 29·4 ins. and less in a depression off the west of Norway, and in another over north Germany and the Baltic; 29·5 ins. and less over the north-east of Russia; 30·0 ins. and less in a small but well-formed depression over the Gulf of Genoa. Rising over Germany and the Netherlands later, but falling fast in the north-west of our Islands, as a new depression came towards Scotland from the Atlantic. Depression over Gulf of Genoa undergoing some modification.

Wednesday, 9th December.

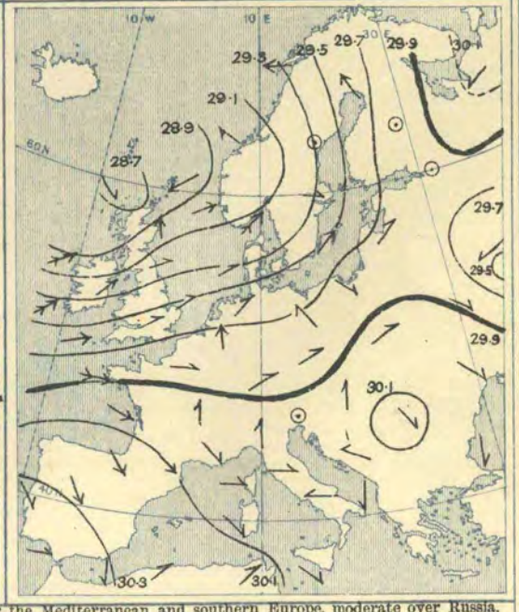
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over Spain, Algeria, Italy, and south-eastern Europe; temporarily fine in Ireland and some parts of Scotland, very unsettled elsewhere. Rain falling over England and some parts of France and Germany, snow over the Shetlands, Russia, and northern Europe. Rain later all over western Europe, as well as in Italy and the south-east of France—largest amounts reported 1·2 ins. at Skudesnaes, 0·9 in. at Parsonstown, and more than half-an-inch at Stornoway, Sumburgh Head, and several Irish stations. Thunder and lightning reported in the north-west of Ireland.

Temperature still changing fitfully. Highest morning readings, 60° at Malta and above 50° on the southern and western sides of the Mediterranean generally, as well as in Portugal and on the west coast of France. Below 50° over the United Kingdom, below 40° at Nairn; lowest of all, (1) −4° Fahr. at Archangel and Kuopio, 6° at Haparanda, 20° at Helsingfors, 22° at St. Petersburg, 25° at Moscow; (2) 32° at Lyons, 35° at Berlin and Cracow; (3) 30° at Christiansund, 32° at Sumburgh Head. Rising later to 60° and more over Italy and Algeria, to between 50° and 56° over Ireland, England, and France; failing to reach 50° in Scotland.

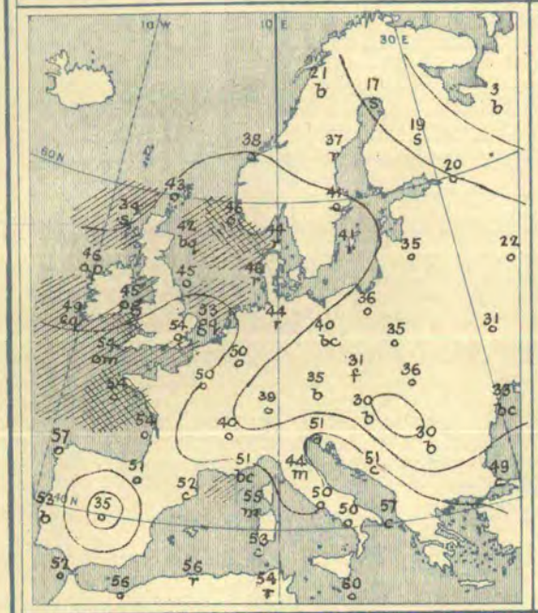
Wind light and variable over the Mediterranean and southern Europe, moderate over Russia, moderate to a gale over the more north-western districts—well-defined cyclonic circulations over the British Islands and France, and also over the Baltic and western Russia; South-Westerly gales again setting in over Ireland and the Irish Sea during afternoon and afterwards spreading to England; night very wild and stormy over England and the north of France.

Barometer highest, 30·4 ins. and more to 30·0 ins. over Spain, and exceeding 30·0 ins. over the Mediterranean, Adriatic, and Austria; 29·8 ins. and more to 29·7 ins. over northern Russia. Lowest, 29·5 ins. and less in a depression over the Baltic Provinces; 29·0 ins. and less in another off Cape Wrath. Scotch disturbance remaining stationary during day, but further depressions advancing to our north-western coasts.

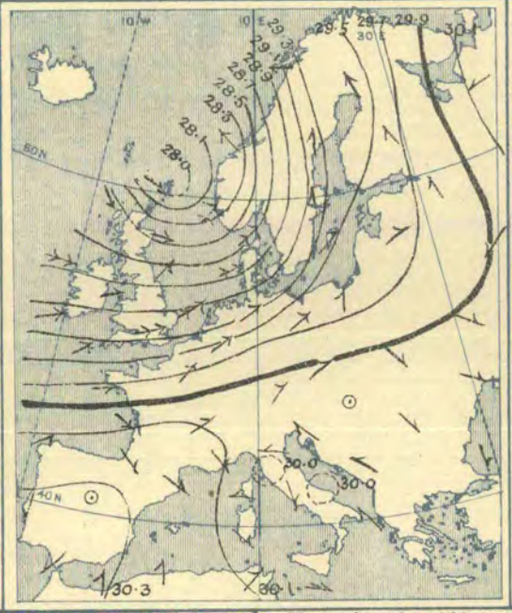
Judd & Co Lte Lith. 73 & 75, Farringdon Rd & Doctors' Commons.

Thursday, 10th December.

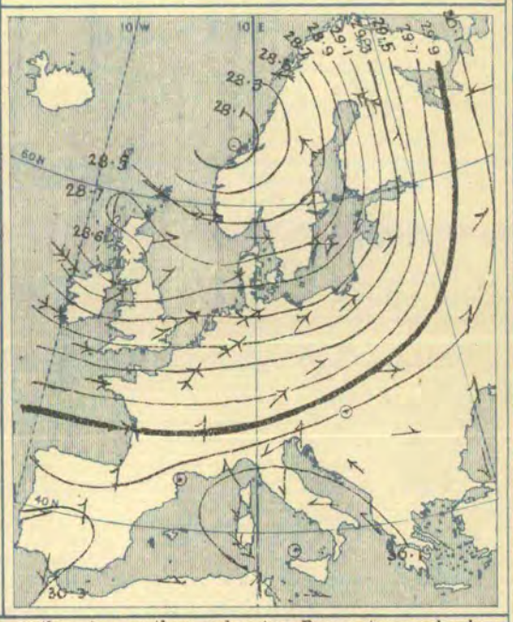
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather continuing in a very stormy, rainy condition over the British Isles and North Sea, and unsettled over north-western Europe generally. Somewhat unsettled also over the southern and eastern parts of the Mediterranean, with rain at Algiers and La Calle; fairly quiet over Russia and the southern parts of Germany, France, and Spain. Rain falling later in all parts of western Europe, snow, sleet, or hail in the north; thunder and lightning occurring in many parts of Ireland and the south of England.

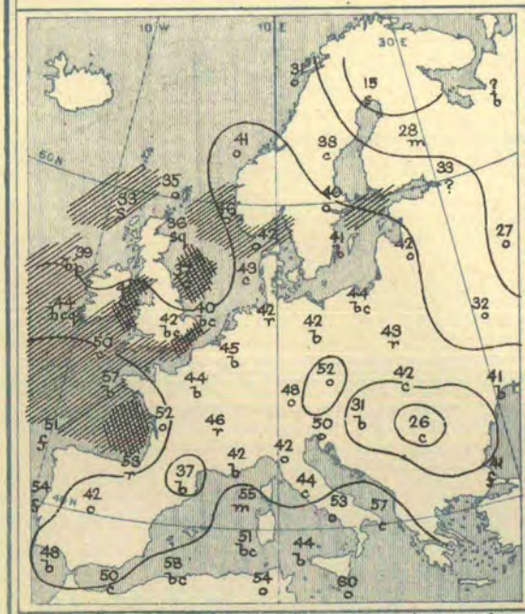
Temperature changing frequently and suddenly, but not greatly. Morning readings below 60° at all stations excepting Malta; below 50° in many parts even of Spain, the south of France, and northern Italy, but exceeding 50° in the west and north of France and the south of England. Lowest of all, 3° Fahr. at Archangel, 17° at Haparanda, 19° at Kuopio, 20° at St. Petersburg, 22° at Moscow. Not below 40° at any of our own stations. Rising later to between 50° and 56° over the southern and south-western parts of England and Ireland, as well as in France, to 57° at Nice and Lisbon, to 64° at Biarritz, and to 65° or more over Algeria and the southern parts of Italy.

Wind light and variable over south-western, southern, and eastern Europe, stronger elsewhere. Blowing a strong gale from West over the British Islands, and from South-West to South on the eastern shores of the North Sea; moderate to strong from the Southward over the Baltic, and from East over Lapland and the north of Norway. Gales from West and South-West, varying much in force, continuing over our Islands during day and night, and blowing very hard in many of the squalls, especially on our western and southern coasts.

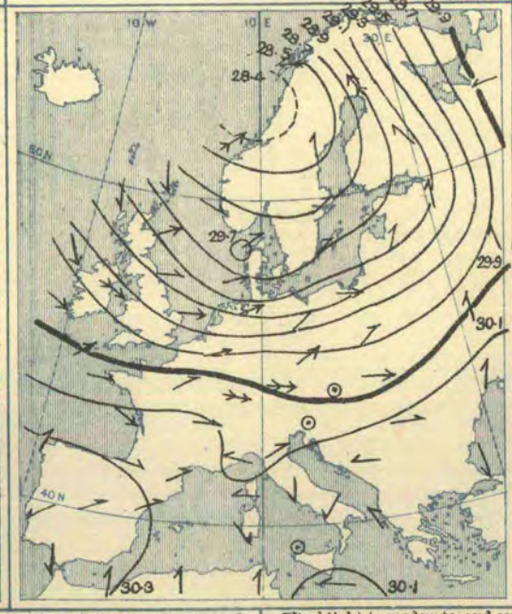
Barometer highest, (1) 30·3 ins. and more to 30·2 ins. over the Spanish Peninsula; (2) exceeding 30·1 ins. over south-eastern Europe and Asia Minor, and exceeding 30·0 ins. all over southern Europe and the greater part of the Mediterranean. Lowest, 28·0 ins. and less in a very large depression having its centre over the Shetlands (27·9 ins. at Sumburgh Head); rather below 30·0 ins. in some parts of northern Italy. Northern depression subsequently travelling north-eastwards, but new (secondary) one reaching our north-west coasts by evening and travelling eastwards quickly.

Friday, 11th December.

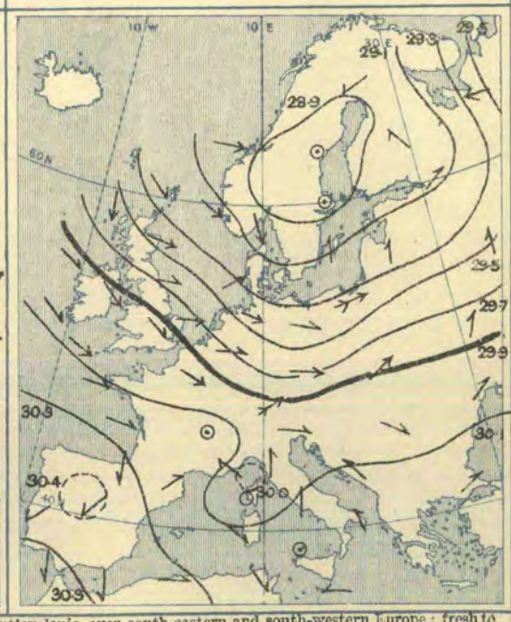
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning still stormy and unsettled over the British Islands and north-western Europe, and bad weather extending eastwards to northern Russia; sky overcast in many places, with snow over Finland and Lapland, as well as several parts of Scotland, rain on the eastern shores of the North Sea, but a distinct tendency to improvement observable over Ireland and England. Still fine and quiet over south-western and south-eastern Europe, fair over the Mediterranean. Snow later over our northern and north-western districts and in Russia and Sweden: rain in the west and south-west of our Islands and some showers in France.

Temperature falling decidedly over the British Islands, rising over central Europe, northern Russia, and Finland. Morning readings ranging between 50° and 60° on the south-eastern, southern, and south-western shores of the Mediterranean, and exceeding 50° in Portugal and the west of France, as well as at Prague and Cracow; below that value over our Islands and central Europe, and as low as (1) 15° at Haparanda, 2 ° at Moscow; (2) 26° at Hermanstadt, 31° at Kharkov and Buda-Pesth; (3) 33° at Stornoway 35° at Nairn and Leith, 37° at York, 38° in the north of Ireland. Not touching 50° in our Islands all day but reaching 59° at Nice.

Wind light to moderate, and anticyclonic, over south-eastern and south-western Europe; fresh to a strong gale over the more northern countries, and blowing a hard gale from North-West and West over Ireland and England, from West in the Netherlands; a fresh to strong breeze from South-West over the Baltic, from South to South-East in Finland, and from East in Lapland. Gale moderating later in our Islands and wind veering north-westwards very generally, but Westerly gales setting in over the Baltic.

Barometer highest, 30·3 ins. and more to 30·2 ins. over the Iberian Peninsula, 30·2 ins. and more over the Black Sea, Turkey in Europe, and Asia Minor, and exceeding 30·1 ins. over the Mediterranean and Italy. Lowest, 28·4 ins. and less in a large depression, the central parts of which lay over the north-west of Norway, and about 28·7 ins. in another (deep secondary) system over Denmark. The two systems merging later and travelling eastwards; barometer rising quickly on all our coasts.

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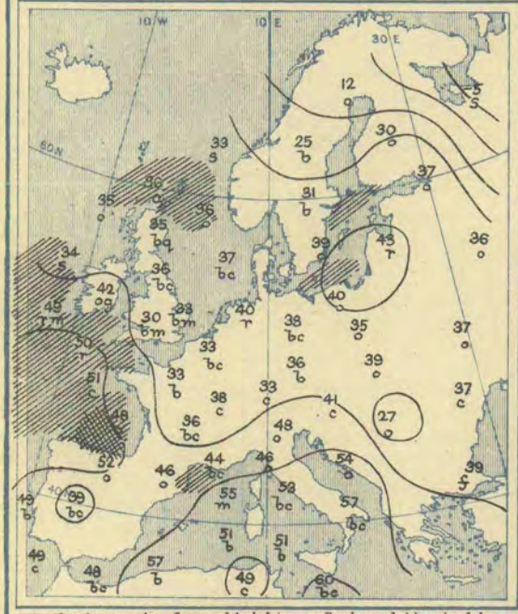
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 12th December.

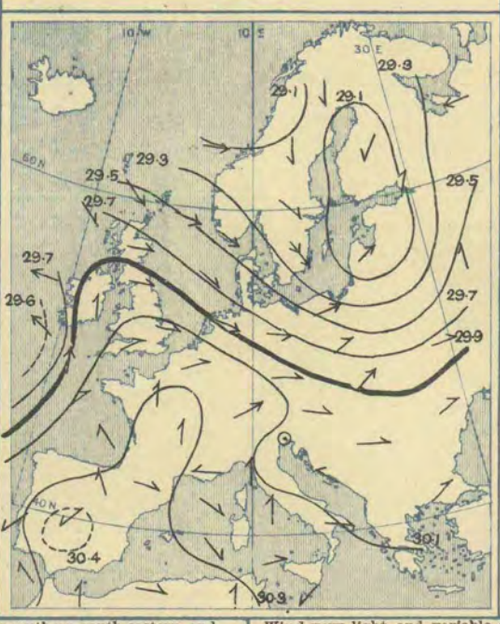
Temperature and Weather.

8 a.m.

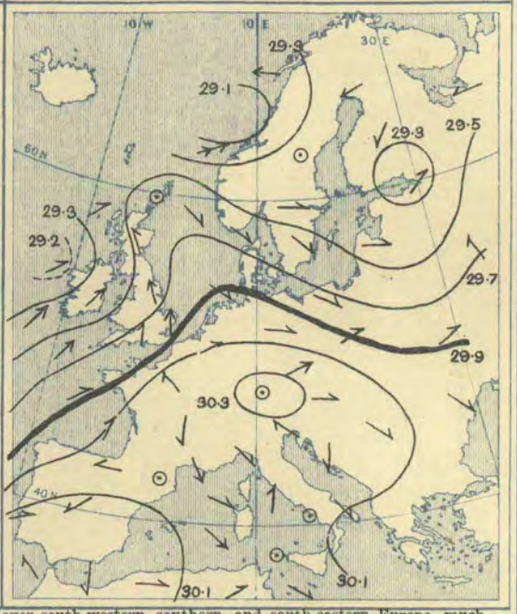


Barometer and Wind.

8 a.m.



6 p.m.



Weather in morning fine and bright over Spain and Algeria, fair over southern, south-eastern, and eastern Europe generally, and temporarily fine over Great Britain and the northern half of France; dull and unsettled over northern Russia, with rain in places; dull, and becoming very rough and rainy over Ireland and St. George's Channel. Very heavy rain at our western stations later and smaller quantities in most other parts of our Islands and neighbourhood; some snow locally in Russia, Germany, Austria, Scotland, and the northern parts of England; fine weather continuing over southern and south-western Europe.

Temperature risen fast over Russia and Ireland, fallen over all the intermediate countries. Morning readings exceeding 50° at most of the Mediterranean stations and in the west of France; much lower elsewhere. Lowest of all, (1) −5° Fahr. at Archangel, 12° at Haparanda, 25° at Hernösand, 30° at Kuopio; (2) 30° in London, 32° at Dungeness, 33° at Oxford, Cambridge, Brussels, and Paris, as well as at Nairn. Rising very fast over Ireland, England, and the north of France later, and exceeding 50° in many places; exceeding 60° over Italy and Algeria.

Wind very light and variable over south-western, southern, and south-eastern Europe, much stronger over the northern and north-western countries; (1) blowing a gale from North-West over Scandinavia and Denmark, strong from West over north Germany, and from South-West to South over the eastern shores of the Baltic; (2) blowing a gale from South-East in Ireland and a strong breeze from South and South-East in St. George's Channel; moderate North-Westerly in the north of Scotland and along our East coasts, and a light breeze from South-West over our inland counties. Strong Southerly winds spreading over Ireland and England later, and strong gales over the Channel and our southern counties.

Barometer highest, 30·4 ins. and more to 30·2 ins. in an anticyclone covering Spain and France, and exceeding 30·0 ins. as far east as Turkey in Europe. Lowest, 29·6 ins. and less in a new depression approaching Ireland, 29·1 ins. and less in a shallower disturbance over the north-west of Norway, and in another over Finland and the Baltic Provinces. Gradients steep over Germany, the North Sea, the British Isles, and Bay of Biscay. The new depression in the west moving north-eastwards later and spreading out laterally over Great Britain.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

Throughout this week barometrical pressure has been high over the south-western, southern, and south-eastern countries of Europe, low in the north-west, north, and north-east. Over these latter regions depressions of unusual magnitude and intensity have been passing continuously, either in a north-easterly or an easterly direction, causing severe gales from between South-West and North-West, the violence of which has been felt most on the coasts of Ireland, England, and the north of France. Temperature has been very low in the far north, but unusually high over the western countries, and the rainfall in those regions has been very heavy. The deepest depression was that of Thursday, when the barometer fell to 27·9 ins. in the Shetland Islands.

At the close of the week there were few, if any, indications of improvement.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 290.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	11·2	?	23	?	NEWQUAY	4·5	?	8	?
OSWALDKIRK (Yorkshire)	12·2	?	24	?	TORQUAY	13·6 *	?	24 *	?
WORKSOP	8·8	+ 1·7	17	+ 2	ARLEY COTTAGE (County Cavan)	8·3	?	16	?
THURCASTON (Leicestershire)	14·1	+ 8·6	27	+15	GUERNSEY	?	?	?	?
EASTBOURNE	? 15·1	?	? 27	?					

* The values at Torquay and Guernsey are obtained by Jordan's Photographic Recorder.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 50.] *Third Series.* WEEK ENDING SATURDAY, 19TH DECEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871-90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866-90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

DISTRICTS. (See p. 296.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	49	18	42·4	32·7	37·8	0 (average)	1	− 4	35	+ 4	2065	+201	833	+114
1. SCOTLAND, EAST	49	16	40·9	29·3	35·3	2 below.	0	− 5	47	+ 9	2282	− 67	940	+161
2. ENGLAND, N.E.	53	22	41·9	32·1	37·1	1 below.	0	− 7	34	+ 2	2429*	− 91	743*	+ 94
3. ENGLAND, EAST	53	22	44·2	32·9	38·8	1 above..	6	− 2	35	− 3	2881	− 37	824	+ 82
4. MIDLAND COUNTIES	53	20	43·2	31·9	37·7	0 (average)	3	− 6	37	− 1	2779	− 78	825	+ 73
5. ENGLAND, SOUTH	54	22	46·3	36·5	41·4	2 above.	12	− 2	22	− 7	3118	− 82	642	+ 88
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	52	24	44·9	35·4	40·4	1 above.	8	− 2	27	+ 1	2547	+104	597	+ 48
7. ENGLAND, N.W.	52	26	44·5	35·4	40·1	1 above.	7	− 3	26	− 1	2701	+ 46	548	+ 20
8. ENGLAND, S.W.	55	25	47·8	39·4	43·8	2 above.	24	+ 9	7	−13	2904	−115	483	+ 88
9. IRELAND, NORTH	53	32	47·7	38·5	43·3	3 above.	24	+12	10	−15	2641	+ 29	528	+ 40
10. IRELAND, SOUTH	56	30	49·9	40·1	45·2	3 above.	30	+11	5	−16	2965	− 26	411	+ 37
— CHANNEL ISLANDS	55	32	50·0	44·4	47·3	2 above.	37	+ 9	0	− 6	3488	+ 7	167	+ 30

Rainfall.

DISTRICTS. (See p. 296.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
		10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	5	12	1 less.	233	− 2	51·0	+ 3·7
1. SCOTLAND, EAST	3	7	0 (average)	178	−15	29·8	− 1·2
2. ENGLAND, N.E.	4	5	1 less.	176	− 3	24·5	− 1·5
3. ENGLAND, EAST	3	6	1 more.	190	+13	26·2	+ 0·9
4. MIDLAND COUNTIES	3	6	0 (average)	186	+12	30·0	+ 1·9
5. ENGLAND, SOUTH	3	5	2 less.	183	+13	32·8	+ 5·6
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	4	14	1 more.	197	− 5	47·6	− 1·0
7. ENGLAND, N.W.	3	8	0 (average)	178	−11	37·3	+ 3·1
8. ENGLAND, S.W.	3	11	0 (average)	191	− 6	43·4	+ 3·7
9. IRELAND, NORTH	4	4	4 less.	216	− 4	34·0	− 1·7
10. IRELAND, SOUTH	4	9	0 (average)	196	− 5	39·9	+ 2·1
— CHANNEL ISLANDS	3	5	4 less.	192	−18	35·8	+ 3·1

Bright Sunshine.

DISTRICTS. (See p. 296.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	3	?	6	?	1142	− 2	26	− 1
1. SCOTLAND, EAST	7	+ 4	16	+ 8	1290	− 41	30	− 1
2. ENGLAND, N.E.	7	− 2	15	− 1	1204	− 23	28	− 1
3. ENGLAND, EAST	10	+ 1	19	+ 1	1405	− 89	33	− 2
4. MIDLAND COUNTIES	12	+ 4	23	+ 8	1328	− 6	31	0
5. ENGLAND, SOUTH	18	+ 7	34	+10	1526	+ 79	36	+ 2
Principal Grazing, &c., Districts. 6. SCOTLAND, WEST	6	− 1	13	0	1355	+ 44	31	0
7. ENGLAND, N.W.	6	− 1	12	− 1	1235	− 60	29	− 1
8. ENGLAND, S.W.	12	+ 1	22	+ 2	1583	+ 16	37	0
9. IRELAND, NORTH	5	− 3	9	− 6	1325	+106	31	+ 3
10. IRELAND, SOUTH	6	− 5	11	− 9	1456	+ 38	34	+ 1
— CHANNEL ISLANDS	30	+17	54	+31	1986	+147	46	+ 3

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather continued mild, rainy, and unsettled during the earlier part of the week, but subsequently became cold and dry in all districts excepting the extreme west of Ireland and Scotland. Heavy snow fell at many of the Scotch stations on the 15th.

Temperature was again rather high until the period drew towards its close, when it fell fast. The averages were consequently again in excess of the means generally; in Scotland N. and the Midland Counties, however, it just equalled the normal, and in Scotland E. and England N.E. it was a little below. The highest of the maxima were registered on the 15th in England, and on irregular dates elsewhere, and ranged from 56° in Ireland S., to 49° in the north and east of Scotland. The lowest of the minima occurred during the middle part of the week in the north, and at the end in the more southern districts, and ranged from 16° in Scotland E. and 18° in Scotland N., to between 20° and 26° in the other parts of Great Britain, and to 32° in Ireland N. and the Channel Islands.

Rainfall slightly exceeded the mean in England E. and Scotland W., but elsewhere it either equalled or was less than the normal quantity.

Bright Sunshine exceeded the mean in most of the southern and eastern districts, but shows a deficit in the west. The percentage of the possible duration ranged from 6 in Scotland N., and from between 9 and 16 in most of the western and northern districts to 34 in England S. and to 54 in the Channel Islands.

Barometer and Wind.—During the earlier part of the week the conditions continued cyclonic, and some deep depressions passed over the Kingdom, causing strong winds and gales from the South-Westward and Westward. On Wednesday, however, the barometer rose rapidly in the rear of a depression, and an anticyclone appeared over us and moved slowly eastwards. The winds consequently became light from between South and East generally; in the extreme west and north, however, they continued Southerly or South-Westerly and fresh, as other low pressure systems skirted those coasts.

NOTE.—In consequence of the variable amount of sunshine recorded at the stations in Scotland N. and the only "Mean" available being for Stornoway, it is impossible to give any "Difference from the Mean" for this week.

* This value has been altered owing to the receipt of further information.

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II.—DATA from which the SUMMARY on page 295 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head ⚓	48	33	42·9	36·4	39·8	+ 0·9	3	21	6	0·52	−0·43	*	*	*	*
	Stornoway	49	29	44·7	34·4	39·8	+ 1·0	8	30	6	1·12	−0·14	4·6	− 1·4	10	0
	Wick	46	29	42·9	33·4	38·3	+ 0·7	3	32	4	1·25	+0·55	*	*	*	*
	Lairg ⚓	48	18	38·0	27·0	32·7	− 3·1	0	65	5	0·79	−0·10	*	*	*	*
	Glencarron ⚓	48	24	40·9	30·8	36·1	− 1·2	0	41	5	1·63	−0·52	*	*	*	*
	Fort Augustus ⚓	47	25	43·4	32·7	38·3	+ 0·3	4	35	6	1·35	+0·30	1·9	?	4	?
	Fort William ⚓	48	29	44·2	34·0	39·3	0·0	6	31	4	2·04	−0·03	1·9	?	4	?
1. SCOTLAND, E.	Nairn	49	23	43·0	28·7	36·1	− 1·4	3	49	5	0·47	+0·03	*	*	*	*
	Aberdeen	45	30	41·3	32·7	37·2	− 0·1	0	34	3	0·49	−0·23	12·3	+ 3·8	27	+ 8
	Braemar ⚓	42	16	37·0	27·9	32·6	− 1·7	0	66	3	0·40	−0·26	5·3†	? †	12†	?†
	Ochtertyre ⚓	46	21	40·4	27·6	34·3	− 1·9	0	54	3	1·09	+0·16	*	*	*	*
	Leith	46	27	43·1	30·0	36·8	− 2·3	3	45	2	0·87	+0·46	*	*	*	*
	Marchmont ⚓	43	25	40·6	28·9	35·0	− 1·4	0	49	4	0·78	+0·08	9·8	?	21	?
2. ENGLAND, N.E.	Alnwick Castle	45	27	41·7	30·7	36·4	− 1·3	0	39	4	0·80	+0·10	*	*	*	*
	Durham	48	24	40·6	30·2	35·6	− 1·5	0	45	4	0·45	−0·23	9·8	+ 0·6	20	+ 1
	Shields	49	28	42·3	32·6	37·6	− 0·8	1	34	4	0·76	+0·18	*	*	*	*
	Scarborough ⚓	48	29	42·5	33·8	38·3	− 0·4	1	30	4	0·43	−0·20	*	*	*	*
	York	53	22	42·0	29·3	35·9	− 1·5	0	43	2	0·42	−0·08	3·4	− 2·0	7	− 4
	Spurn Head	48	30	42·0	35·7	39·0	0·0	0	21	4	0·36	− 0·22	*	*	*	*
3. ENGLAND, E.	Hillington ⚓	51	25	44·2	32·4	38·5	+ 1·5	6	37	4	0·67	+0·13	12·2	+ 3·7	23	+ 6
	Yarmouth	48	28	42·3	34·0	38·3	+ 0·4	1	29	4	0·49	−0·11	*	*	*	*
	Geldeston	52	27	45·4	34·1	40·0	+ 2·0	10	32	4	0·49	−0·01	8·9	− 1·6	17	− 3
	Cambridge	52	25	45·3	32·0	38·9	+ 1·6	9	39	2	0·54	+0·13	9·4	+ 0·5	18	+ 1
	Rothamsted	53	22	43·8	32·1	38·2	+ 0·6	5	38	3	0·81	+0·26	10·3	?	19	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	52	20	41·7	27·4	34·8	− 2·6	0	50	1	0·15	−0·36	*	*	*	*
	Loughborough	52	22	42·7	31·6	37·4	− 0·3	2	39	2	0·54	+0·04	*	*	*	*
	Stamford (Ketton Hall)	52	22	43·7	29·6	36·9	− 0·4	5	46	3	0·44	?	*	*	*	*
	Cheadle ⚓	51	26	42·4	32·4	37·6	+ 1·0	1	35	4	0·92	+0·21	*	*	*	*
	Churchstoke ⚓	52	25	44·0	32·5	38·5	+ 0·5	6	36	3	0·57	−0·12	11·8	+ 3·4	23	+ 7
	Hereford ⚓	53	24	43·1	33·1	38·3	− 0·1	3	33	3	0·72	+0·20	*	*	*	*
	Cirencester	53	20	43·7	34·4	39·2	+ 1·9	5	29	3	0·43	−0·22	15·3	+ 6·6	29	+12
	Oxford	52	25	44·1	33·9	39·2	+ 0·9	6	31	3	0·61	+0·13	16·7	+ 8·5	32	+16
5. ENGLAND, S.	London	54	26	46·4	34·7	40·8	+ 1·6	12	30	4	0·30	−0·18	6·5 †	+ 2·3†	12†	+ 4†
	Strathfield Turgiss ⚓	53	22	44·1	32·6	38·6	+ 0·8	6	36	3	0·52	+0·04	*	*	*	*
	Dungeness	52	30	46·3	36·4	41·6	+ 1·5	12	24	3	0·31	−0·38	*	*	*	*
	Hastings (St. Leonards)	52	31	46·5	38·2	42·5	+ 2·4	19	11	3	0·33	−0·33	? 23·0	? + 10·8	? 43	?+20
	Southampton	54	29	48·4	38·6	43·7	+ 3·7	26	10	3	0·33	−0·38	17·0	+ 6·8	31	+12
	Hurst Castle	52	34	47·7	40·0	44·0	+ 3·0	22	6	3	0·56	−0·06	*	*	*	*
	Stowell ⚓	53	29	44·8	35·0	40·1	+ 1·6	8	28	3	0·78	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	50	31	45·8	35·3	40·8	+ 1·7	11	28	5	2·03	−0·07	*	*	*	*
	Glasgow	46	28	41·2	34·1	37·3	− 0·3	0	50	3	1·46	+0·56	6·0	+ 2·6	13	+ 6
	Ardrossan	49	32	46·0	35·1	40·8	+ 0·7	11	29	3	0·96	+0·12	*	*	*	*
	Glenlee ⚓	50	24	43·6	33·0	38·5	+ 1·3	4	34	3	1·71	+0·31	*	*	*	*
	Douglas (Isle of Man)	52	36	47·8	39·7	43·9	+ 2·8	23	6	5	0·74	−0·27	6·7	− 3·1	13	− 6
7. ENGLAND, N.W.	Newton Reigny	51	26	43·5	30·8	37·4	+ 1·2	4	42	4	0·91	+0·13	7·9	+ 2·0	16	+ 4
	Stonyhurst	49	30	43·9	35·2	39·7	+ 2·0	5	26	2	1·51	+0·47	4·8	− 0·7	10	− 2
	Blackpool ⚓	49	32	43·2	33·6	38·6	− 0·3	3	32	4	0·45	−0·26	2·7	− 3·1	5	− 7
	Manchester	51	30	44·1	35·3	39·9	+ 2·3	6	26	3	0·99	+0·19	*	*	*	*
	Liverpool Obsy. (Bidston)	52	31	43·3	35·7	39·7	− 0·1	4	24	4	0·57	−0·02	*	*	*	*
	Llandudno ⚓	51	32	47·0	37·9	42·6	+ 1·0	21	11	2	0·44	−0·26	8·0	+ 2·3	15	+ 4
	Holyhead	52	34	46·4	39·6	43·1	+ 0·2	18	7	4	0·51	−0·34	*	*	*	*
8. ENGLAND, S.W.	Llandovery	53	26	45·4	34·9	40·4	− 0·3	10	20	4	1·35	+0·15	*	*	*	*
	Pembroke	52	39	48·4	42·9	45·8	+ 2·1	27	0	3	0·78	−0·12	6·6	− 3·7	12	− 8
	Arlington (N. Devon)	51	31	45·6	36·7	41·3	+ 0·9	10	22	3	1·86	+0·57	*	*	*	*
	Cullompton ⚓	54	25	47·4	36·1	42·0	+ 2·5	15	17	3	1·11	+0·32	13·5	+ 5·8	25	+11
	Falmouth	54	38	49·9	43·4	46·8	+ 2·7	34	0	3	0·71	−0·48	14·0	+ 1·9	25	+ 3
	Plymouth	55	30	49·7	42·1	46·1	+ 4·0	29	0	3	0·75	−0·14	11·7	+ 0·1	21	0
	Prawle Point	52	34	47·9	40·0	44·1	+ 1·4	23	6	3	0·77	−0·08	*	*	*	*
9. IRELAND, N.	Malin Head	50	32	46·3	37·6	42·1	+ 2·3	19	12	3	0·52	?	*	*	*	*
	Londonderry	53	33	48·2	37·9	43·3	+ 4·0	26	11	4	0·44	−0·46	*	*	*	*
	Mullaghmore	52	34	49·0	41·1	45·2	+ 2·9	26	3	4	0·28	−0·73	*	*	*	*
	Belmullet	51	33	49·6	41·6	45·8	+ 1·8	28	1	5	0·58	?	*	*	*	*
	Markree Castle	51	34	47·7	37·8	43·0	+ 4·3	25	12	5	0·43	−0·35	5·2	− 2·9	10	− 6
	Brookeborough	50	34	46·2	36·9	41·7	+ 4·4	12	22	5	0·39	−0·53	*	*	*	*
	Armagh	52	36	47·6	38·6	43·3	+ 5·1	23	10	5	0·26	−0·38	5·2	− 2·8	10	− 6
	Donaghadee	51	33	47·3	39·9	43·8	+ 2·7	21	6	5	0·30	−0·33	*	*	*	*
	Edgeworthstown	49	32	47·1	35·3	41·4	+ 3·3	14	28	2	0·42	−0·31	*	*	*	*
10. IRELAND, S.	Dublin	55	37	48·6	39·7	44·3	+ 3·3	26	6	4	0·21	−0·33	7·2	− 3·8	14	− 7
	Parsonstown	54	34	48·9	37·1	43·2	+ 4·0	29	14	4	0·98	+0·28	4·7	− 5·2	9	−10
	Kilkenny	53	30	48·0	37·4	42·9	+ 2·8	26	13	3	0·74	+0·03	*	*	*	*
	Waterford	52	31	49·2	40·2	44·9	+ 2·7	28	5	4	0·57	−0·36	*	*	*	*
	Roche's Point	54	38	51·3	42·6	47·1	+ 3·5	36	0	5	1·05	−0·06	*	*	*	*
	Valencia	54	38	51·6	43·0	47·5	+ 2·5	39	0	6	1·39	+0·04	4·9	− 5·3	9	−10
	Killarney	56	36	50·7	40·5	45·8	+ 4·8	33	4	4	1·41	?	*	*	*	*
	Foynes	54	33	50·6	40·3	45·7	+ 3·4	33	5	3	1·06	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	54	40	50·4	45·7	48·1	+ 1·5	43	0	3	0·39	−0·51	*	*	*	*
	Jersey	55	32	49·6	43·0	46·4	+ 2·9	31	0	3	0·59	−0·26	30·3	+17·3	54	+31

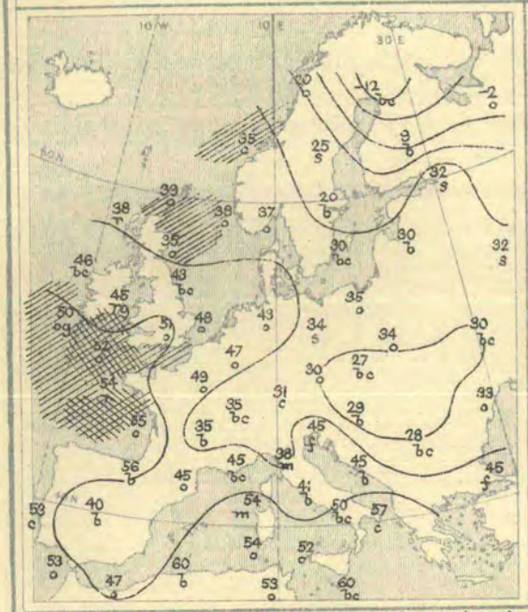
Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

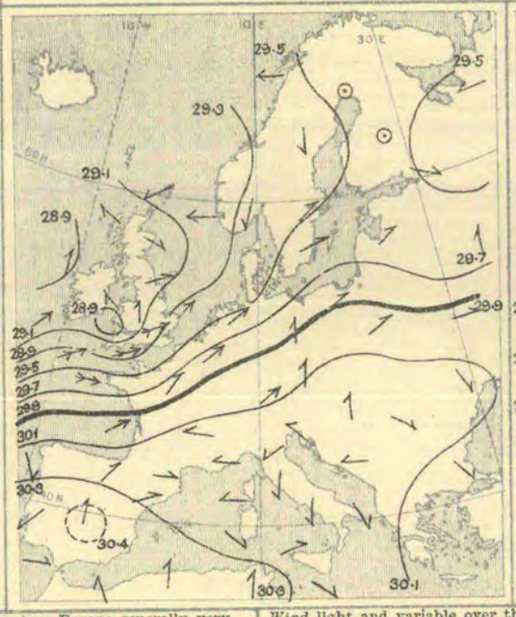
† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sun-hine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

Sunday, 13th December.

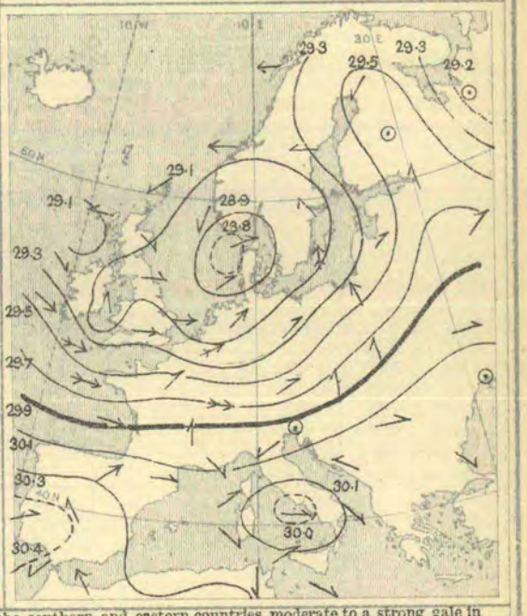
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine over south-western, southern, and south-eastern Europe generally, very unsettled over the British Islands, north-western and northern Europe, but especially rough over the southern parts of England, the Channel, Brittany, and the north of France. Rain in many parts of our Islands, snow in parts of Russia, Sweden, and Denmark; thunder, lightning, and hail at Jersey. Rain later in all parts of the United Kingdom and France, but amounts not very large; lightning at Dungeness and a thunderstorm at Riga.

Temperature fallen over Russia and central Europe, still changing fitfully in the north-west. Morning readings 60° or more at Malta and some Algerian stations, exceeding 50° in the south of Italy, on all the Spanish coasts, in the west and north of France, the south of England, and at Valencia; lower elsewhere. Below 40° in Scotland, and lowest of all, (1) −12° Fahr. at Haparanda, −2° at Archangel, +9° at Kuopio, 20° at Bodö, 26° at Stockholm, 30° at Riga and Kiev; (2) 28° at Vienna, 28° at Hermanstadt, 29° at Buda-Pesth, 30° at Prague, 31° at Munich. Daily maxima exceeding 50° over the southern parts of our Islands, and exceeding 60° at some of the western French stations, as well as over Algeria and southern Europe.

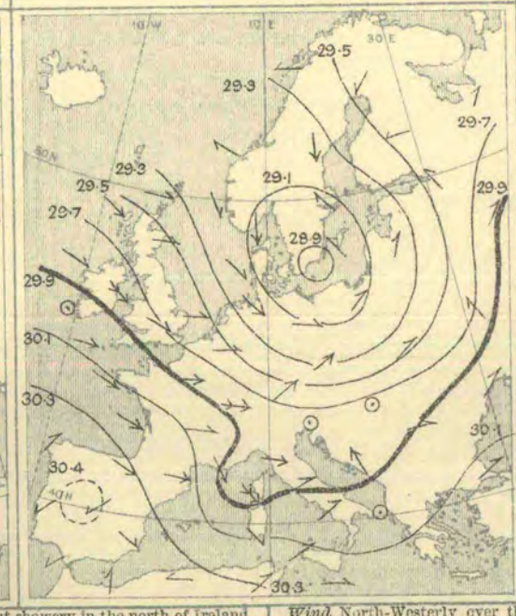
Wind light and variable over the southern and eastern countries, moderate to a strong gale in the north-west and north. Strong South-Westerly to Westerly gales in the Channel and south of England, fresh South-Westerly wind in the Netherlands, South-South-Easterly in the Sound, Easterly in Norway, South-Easterly in the north of Scotland, Southerly in the west of Ireland. Westerly gales very severe over our southern counties and the Channel during day, but varying light breezes prevailing in the north, and wind tending to draw North-Westward in Ireland. Gale setting in at some of the German stations.

Barometer highest, 30·4 ins. and more to 30·1 ins. over the Iberian Peninsula, and 30·2 ins. and more to 30·1 ins. in a large ridge stretching thence in an easterly direction over the Mediterranean, southern and south-western Europe. Lowest, (1) 28·8 ins. and less in a small but deep depression having its centre over south Wales; (2) 28·9 ins. and less in another system off our extreme north-west coasts, and below 29·1 ins. over north Britain generally; (3) 29·5 ins. and less in a shallow disturbance over the north of Russia. Depression over south Wales subsequently travelling with great rapidity across England and the North Sea to the north of Denmark; disturbance off our north-west coasts filling up and barometer rising quickly in Ireland.

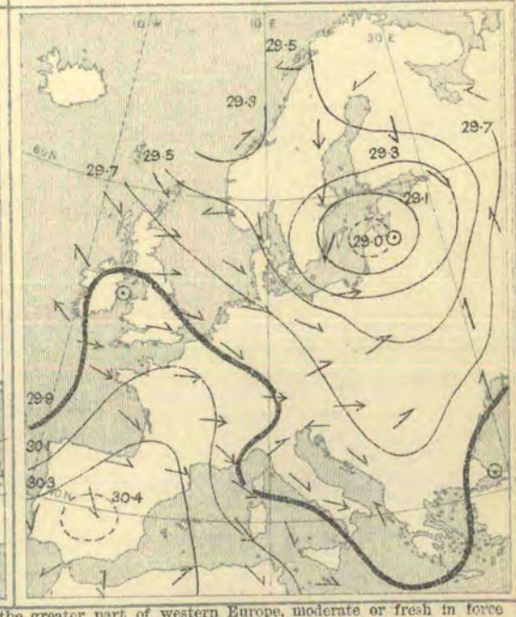
Monday, 14th December.

Temperature and Weather. 8 a.m.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine over the greater part of our Islands and France, but showery in the north of Ireland and rainy in the north-east of England, as well as over central France; fine also over Algeria and the southern parts of France and Italy. Dull over the northern, eastern, and central parts of the Continent, with rain at Wisby and Copenhagen, and snow at Hernösand, Helsingfors, and Skagen. Rain setting in later over the south-western parts of the United Kingdom and spreading eastwards; lunar halos seen in various parts of England. Rain also falling in Austria and the south of Russia.

Temperature highest, 60° at Malta, 59° at Cagliari, 58° at Palermo, and 57° at Rome and Brindisi; above 50° over the Mediterranean and Adriatic generally, as well as over the Bay of Biscay and at the mouth of the Channel. Lowest, −5° Fahr. at Uleaborg, −1° at Haparanda, +7° Fahr. at Archangel, 11° at Kuopio, 21° at Bodö, and 26° at Hernösand; below the freezing point in many parts of Scandinavia and Russia, and very little above it in Scotland. Rising during day to 50° or more at several of our south-western stations, but remaining below 40° in the north of Scotland. Frost occurring over Scotland at night. Daily maxima exceeding 60° in most parts of Algeria and southern Europe.

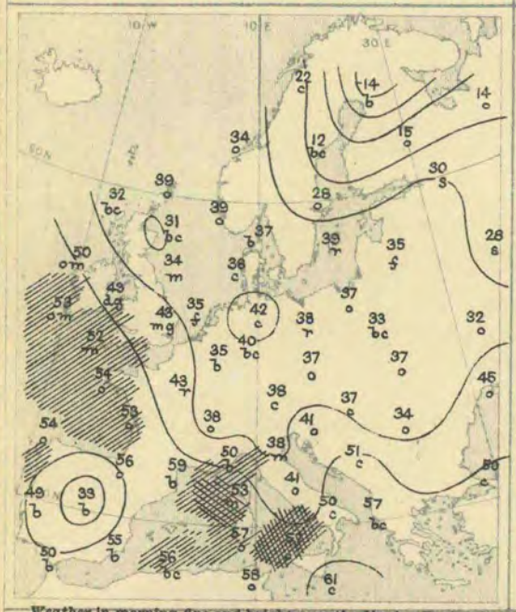
Wind North-Westerly over the greater part of western Europe, moderate or fresh in force generally, but strong to a gale over the Irish Sea, as well as at Toulon and Cagliari. Moderate to strong from the South-Westward over Italy and central Europe, light from the Southward in Russia; moderate from South-East in the south of Sweden and from East in the west of Norway. Subsequently backing to the South-Eastward in the west and south of Ireland, and to the Westward or South-Westward in many other parts of the United Kingdom.

Barometer highest, 30·3 ins. to 30·5 ins. over Spain and Algeria, 30·0 ins. and upwards over the south of Russia. Lowest, 28·9 ins. and less in a well-marked depression lying over the south of Sweden. Gradients rather steep over all the more central parts of Europe. Depression subsequently moving eastwards to the Baltic Provinces, but new disturbance approaching the south-west of our Islands, and barometer falling briskly in Ireland and the south-west of England.

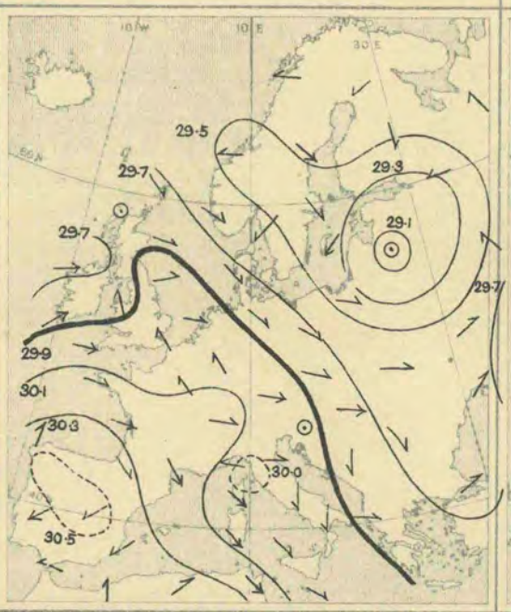
Judges Ltd Edin

Tuesday, 15th December.

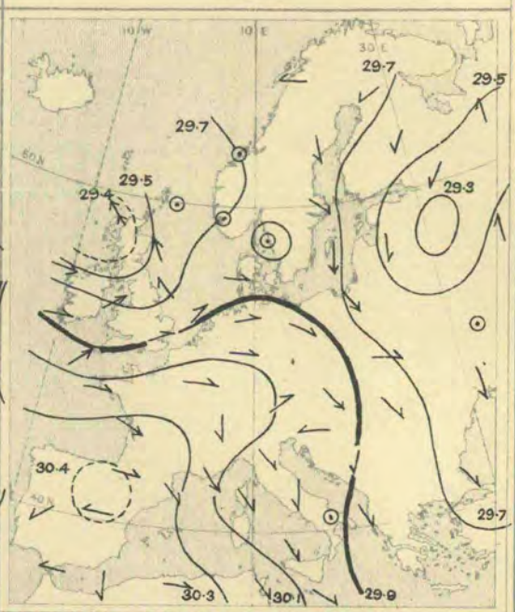
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over the Iberian Peninsula and the south of France, and for a time in Scotland, Denmark, and the south of Norway also; cloudy and very unsettled elsewhere, with rain in many parts of Ireland, England, and the north of France, and the south of Sweden; snow in the northern parts of Russia. Rain later throughout our Islands, Germany, and the north of France—falls exceeding 0·7 in. in the west and north of Scotland, but less elsewhere. Heavy rain falling during day at Constantinople and in the south of Russia.

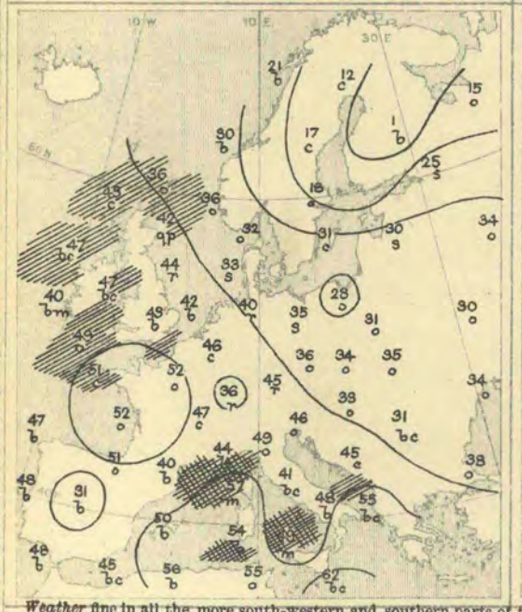
Temperature changing irregularly—fallen over Scotland and central Europe. Morning readings below 60° except at Malta, but exceeding 50° on the Atlantic coasts of Spain, France, and the British Isles, as well as over the Mediterranean; below 40° in the north and east of our Islands, and also over northern and central Europe and central Algeria. Lowest of all, (1) −14° Fahr. at Haparanda, +14° at Archangel, 15° at Kuopio, 28° at Helsingfors and Moscow, 30° at St. Petersburg; (2) 29° at Nairn and Leith, 31° at Aberdeen, 32° at York. Rising later to between 50° and 55° over Ireland and England, and to nearly 60° in many parts of France, but not touching 45° in the north and north-east of Scotland. Exceeding 60° in Algeria and the southern parts of Spain and Italy, the highest European reading being 66° at Palermo and San Fernando.

Wind very variable; (1) moderate to strong from South-West on our south-western coasts, from South-East in the north-west; (2) light to moderate from North-West in Scotland and on the eastern shores of the North Sea, moderate Westerly in north Germany, but North-Easterly over Finland and Northerly over Sweden; (3) strong to a gale from West and North-West over many parts of the Mediterranean, but light Easterly at Nice; (4) moderate and anticyclonic on the shores of the Iberian Peninsula. Increasing to a gale at many of our western stations later, and freshening considerably in the Channel. Northerly wind freshening considerably over the Baltic.

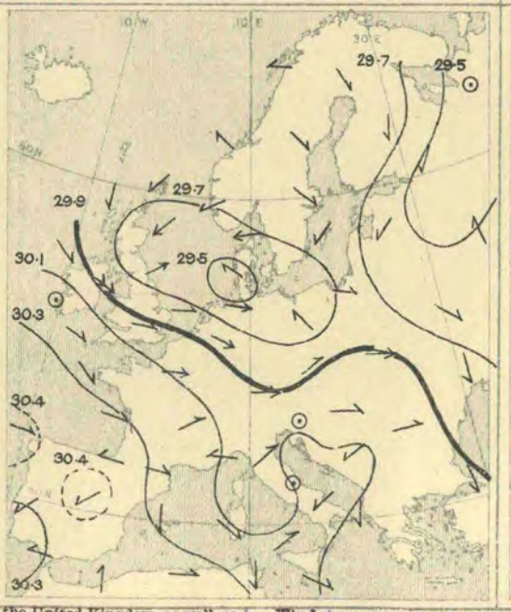
Barometer highest, 30·5 ins. and more to 30·2 ins. over Spain, Algeria, and the south-west of France. Lowest, (1) 30·0 ins. and less in a depression over the Gulf of Genoa; (2) 29·7 ins. and less in another off the north-west of Ireland; (3) 29·1 ins. and less in a third over the Baltic Provinces, whence a large "hollow" extended southwards to the Black Sea, and another north-westwards to the coast of Norway. The depression in the north-west growing deeper later and spreading south-eastwards; that over the Baltic moving north-eastwards across Russia.

Wednesday, 16th December.

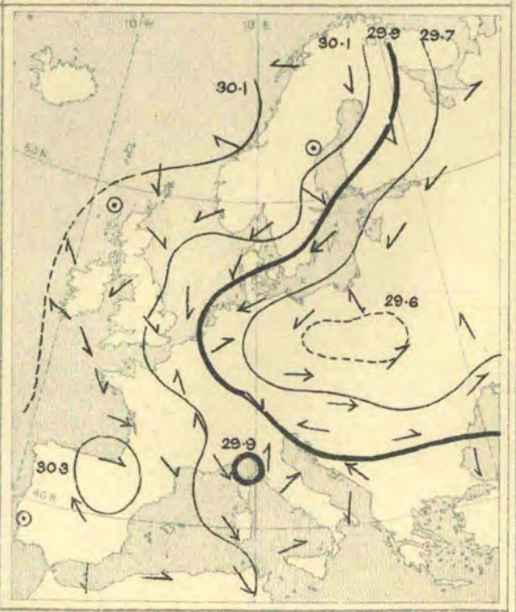
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather fine in all the more south-western and southern parts of the United Kingdom, as well as over the west of Norway and the whole of southern Europe; cloudy or overcast elsewhere, with passing showers on the north-east coasts of Great Britain, steady rain at many of the German stations, and snow over the Gulf of Finland and the Baltic Provinces, as well as at Fanö and Berlin. Fine weather subsequently extending to all parts of the United Kingdom, but rain falling in Germany, as well as at some of the French stations.

Temperature highest, 62° at Malta, 56° at Algiers, and 55° at Brindisi, La Calle, and Tunis; above 50° over the Mediterranean and the Bay of Biscay generally, and just touching that point at Jersey. Lowest, 1° at Kuopio, 12° at Haparanda and Uleaborg, 15° at Archangel, and 16° at Hangö and Helsingfors; below 20° over Sweden and northern Russia generally, and below the freezing point over nearly the whole of northern Europe, as well as over central Spain. Rising during day to 50° or a little more in the extreme west and south of our Islands, and to 55° or more at several of the French stations, but frost occurring in many parts of the United Kingdom at night. Thermometer exceeding 60° over the greater part of southern Europe, and reaching 70° at Brindisi and Palermo.

Wind strong to a gale from the North-Westward over the Irish Sea, moderate or fresh from the Westward over England and Ireland generally, as well as over the Netherlands, western Germany, and the greater part of France. Southerly or South-Easterly in eastern Germany, and Easterly or North-Easterly over Norway, Denmark, and the north of Scotland, with a moderate gale at Aberdeen. Light or moderate from the Northward over Finland, Sweden, and the Baltic. Variable over Spain, Italy, Algeria, and the Mediterranean. Subsequently veering to the Northward over England, but backing to the South-Eastward in Ireland; gale over Irish Sea entirely subsiding.

Barometer highest, 30·3 ins. to 30·45 ins. in an anticyclone lying over Spain, Algeria, and the south-west of France. Lowest, 29·5 ins. and less in a long shallow area lying over northern Russia, and also in a well-defined depression over the south of Denmark, and in a small secondary system lying off the north-east coasts of Great Britain. Depressions subsequently moving away to the eastward, and barometer rising in all parts of western Europe, but rise slackening considerably in the west of Ireland.

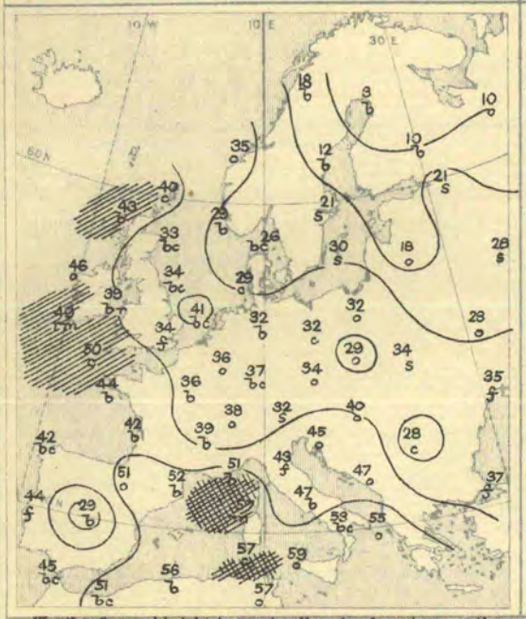
Judd & Co Ltd Lith

III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 17th December.

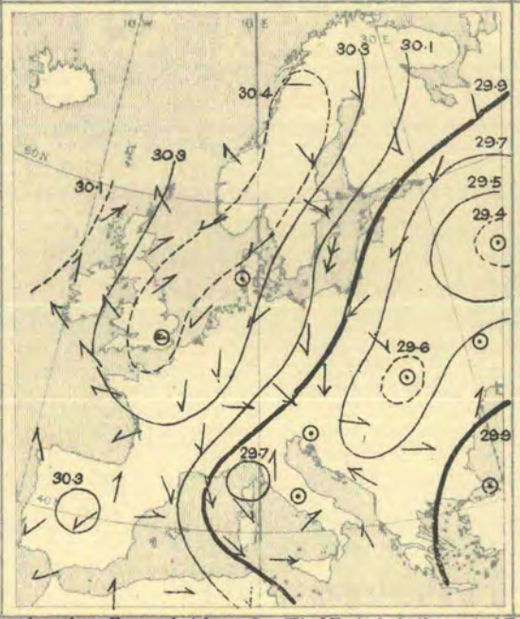
Temperature and Weather.

8 a.m.

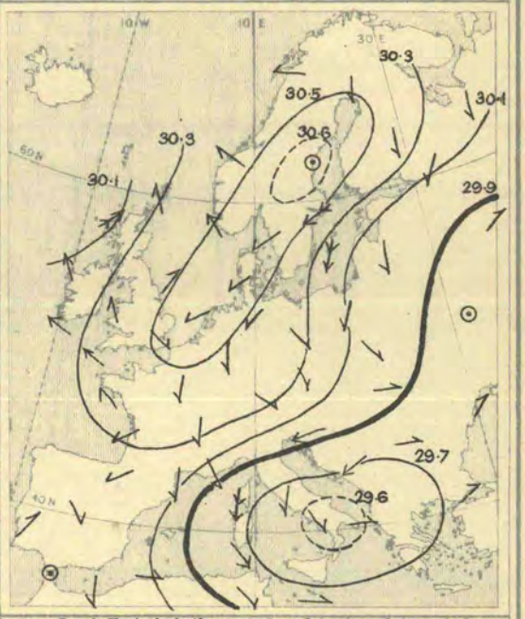


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine and bright in nearly all parts of western, northern, and southern Europe, but foggy over the inland parts of England and rainy at Valencia Island. Dull in most of the eastern and central countries, with snow at some of the Russian stations, as well as at Lemberg and Munich. Rain falling later in the extreme west and north of our Islands, no important change occurring elsewhere.

Temperature highest, 59° at Palermo, 57° at Sanguinaire, Cagliari, and Tunis, and 56° at Leghorn: above 50° over the Mediterranean generally, and just touching that point at Scilly and Roche's Point. Lowest, 9° at Uleaborg, 10° at Archangel and Kuopio, 12° at Hernösand, 13° at Hangö, and 18° at Bodö and Helsingfors; below the freezing point over Russia and northern Europe generally, as well as over the central parts of our Islands. Daily maxima below 40° in many parts of Great Britain, and as low as 32° at York and Loughborough; thermometer exceeding 50° in the south-west of our Islands, and also in the west and south of France; exceeding 60° over Algeria and the southern parts of Spain and Italy, and reaching 63° at Cagliari and Malta.

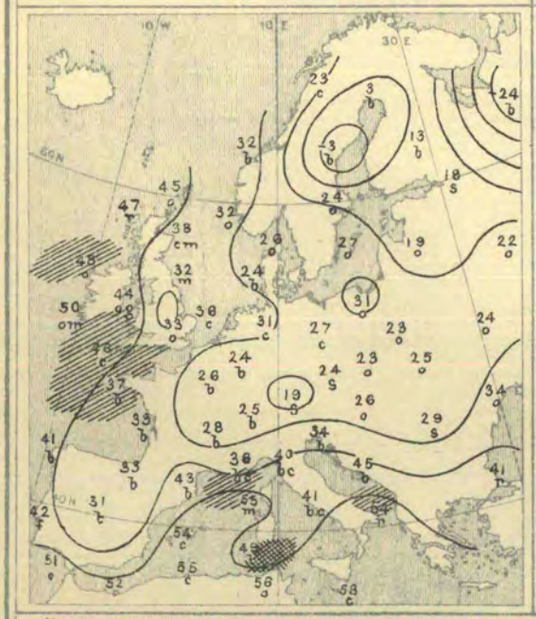
Wind Easterly in the west of France; South-Easterly in the west of our Islands, and strong in force at some of the Irish stations; Southerly or South-Westerly in the north of Scotland. Moderate to strong from the Northward over Sweden, Finland, the Baltic, and the greater part of central Europe, and from the North-Westward in the south of France. Light from the Southward over the south of Russia and the greater part of Italy; variable in Algeria. Subsequently increasing to a moderate or fresh gale from the Southward or South-Westward in the extreme north and north-west of our Islands. Strong winds from between North-East and North-West setting in over Italy and its immediate neighbourhood.

Barometer highest, 30·4 ins. and upwards in a long band stretching in a southerly and south-south-westerly direction from the north of Scandinavia across the North Sea to England and the Channel. Lowest, 29·5 ins. and less in a shallow depression over central Russia; 29·6 ins. and less in another shallow system over Galicia; 29·7 ins. and less in a third, and somewhat deeper, disturbance lying over the Gulf of Genoa. Depression subsequently travelling in a north-north-easterly direction outside our extreme western and north-western coasts, but anti-cyclonic band growing broader and increasing in intensity.

Friday, 18th December.

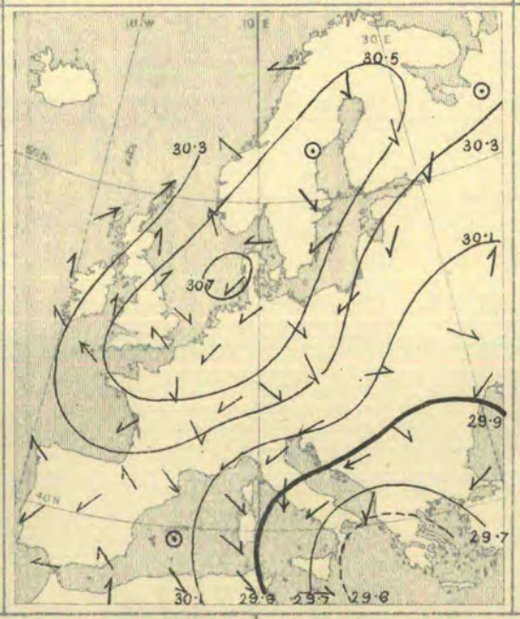
Temperature and Weather.

8 a.m.

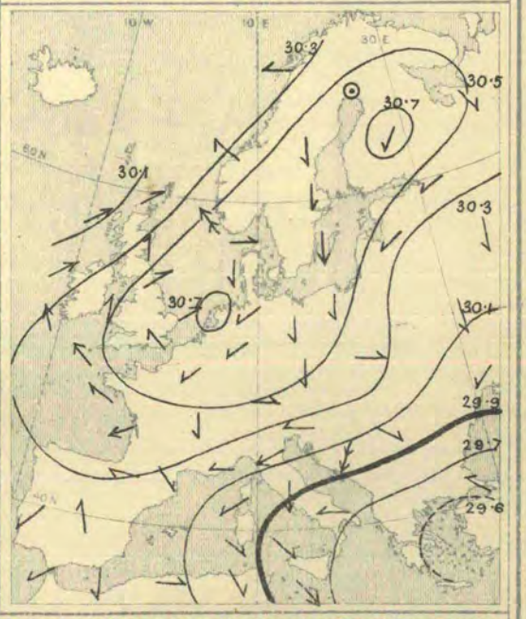


Barometer and Wind.

8 a.m.



6 p.m.



Weather dull in the western and northern parts of our Islands, with rain at Stornoway and Roche's Point; dull also over the greater part of Russia and central Europe; snow falling at St. Petersburg and Munich. Fair or fine in most other localities, but foggy over central England. A little rain falling during day in nearly all parts of Ireland and the west and north of Scotland, but sky clearing over England. Snow falling in many parts of Sweden and Russia.

Temperature highest, 58° at Malta, 56° at La Calle, 55° at Algiers, and 54° at Palma and Brindisi; above 50° over the central and southern parts of the Mediterranean generally, and just reaching that point at Valencia Island. Lowest, −24° at Archangel, −3° at Hernösand, +3° at Haparanda, 12° at Uleaborg, and 13° at Kuopio; below 20° over the northern parts of Sweden and Russia generally, below the freezing point over the whole of northern and central Europe, as well as over the inland parts of England. Daily maxima below 40° at most of the English stations, but thermometer rising considerably above 45° in Ireland and the north of Scotland, and reaching 51° at Valencia Island. Exceeding 55° in Spain and southern Italy and exceeding 60° in Algeria.

Wind moderate from the Eastward or South-Eastward over the Channel and Bay of Biscay, strong from the South-Eastward on our south-west coasts, and from the Southward in the extreme north and north-west, moderate to strong from the South-Eastward in the west of Norway. Northerly to North-Easterly over Finland, the Baltic, and north Germany, North-Westerly over Austria and eastern and southern Germany. Strong from the North-Eastward over Italy and Adriatic, and light from the same quarter in Spain. Variable or Southerly in Algeria. No important change occurring during day.

Barometer highest, 30·6 ins. to 30·7 ins. in a long band stretching south-westward from the Gulf of Bothnia to Holland, Belgium, and the south-east of England. Lowest, 29·6 ins. and less in a large and well-marked depression lying over Greece; 30·2 ins. and less in some large systems travelling north-eastwards outside our own extreme western and northern coasts. No important change occurring during day, but anticyclone tending to spread further south-wards. Depression over Greece moving slowly eastwards towards Asia Minor.

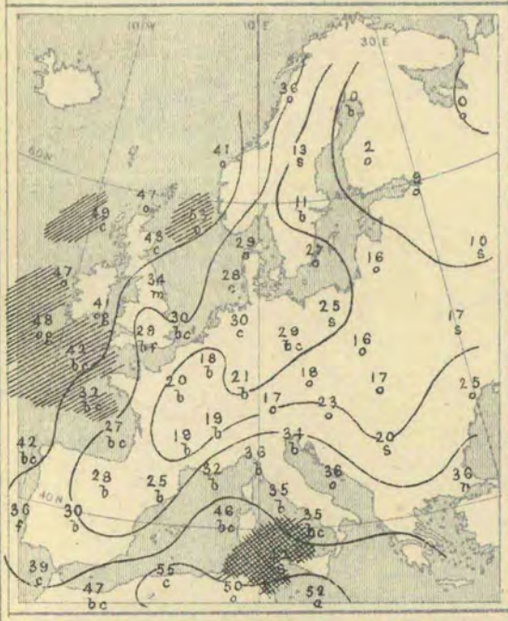
Lith.

III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 19th December.

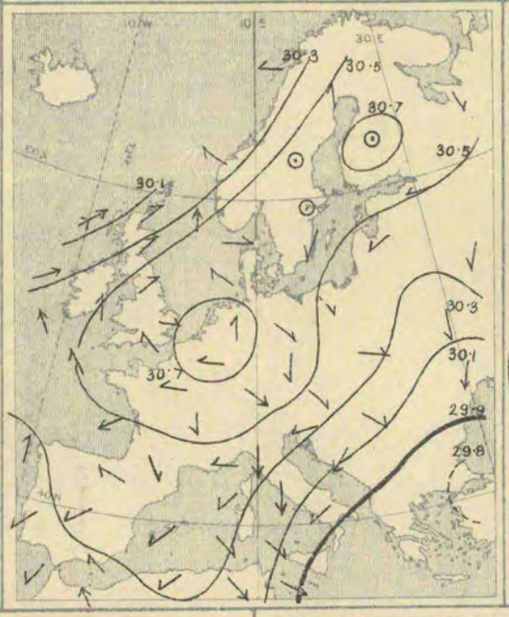
Temperature and Weather.

8 a.m.

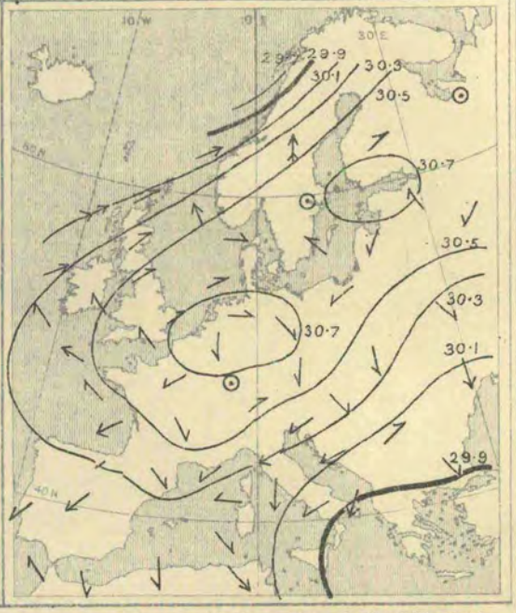


Barometer and Wind.

8 a.m.



6 p.m.



Weather fine and bright over England, France, the Netherlands, western Germany, and the greater part of southern Europe. Dull elsewhere, with snow at several of the Swedish, Russian, and Austrian stations, as well as at Palermo. Rain falling later in the west of Norway; no important change occurring elsewhere.

Temperature highest, (1) 55° at Algiers, 52° at Malta, 50° at La Calle, and 47° at Oran; (2) 49° at Stornoway, 48° at Nairn and Valencia Island, and 47° at Sumburgh Head, Belmullet, and Roche's Point. Lowest, 0° (zero) at Archangel, 2° at Kuopio, 4° at Hangö, and 9° at St. Petersburg; below 20° at most of the Swedish and Russian stations, as well as in some parts of Germany and Austria; below the freezing point in nearly all parts of northern, central, and eastern Europe, as well as over the greater part of England. Daily maxima below 40° at most of the English stations, but thermometer rising to between 45° and 50° on our extreme western and northern coasts. Exceeding 60° in some parts of Spain and also in Algeria.

Wind light or moderate from the Eastward over France and Spain, and from the South-Eastward over the greater part of England. Fresh to strong from the South-Eastward or Southward in Ireland and from the South-Westward in Scotland, with a gale at Stornoway; light from the South-Eastward in the west of Norway. Light from the Northward over the greater part of Russia and central Europe, but North-Westerly in Austria. Strong from the Northward in Italy, variable in Algeria. No important change occurring during day.

Barometer highest, 30·7 ins. and upwards over Germany and the Netherlands, and also over Finland. Lowest, 29·8 ins. and less in a depression lying over Asia Minor; 30·1 ins. and less in another disturbance lying to the north-westward of Scotland. Low-pressure system off Scotch coasts subsequently travelling north-eastwards to the north-west of Norway; no other change of importance occurring during day.

GENERAL NOTES.

During the week under review a great change took place in the distribution of pressure over Europe, and, consequently, in the prevailing winds and weather.

At the commencement of the time pressure was highest over the southern countries and lowest in some deep and complex cyclonic systems which were travelling eastwards across our Islands and the North Sea. The wind was, therefore, Easterly in the far north, but South-Westerly or Westerly in most other localities, and on the 13th a severe gale was experienced over the Bristol and English Channels. As the depressions moved across to the Baltic and Russia, the eastern portion of the southern high-pressure system gave way and Northerly or North-Westerly winds set in over a considerable part of Europe, with falling temperatures. A brisk increase of pressure now took place over the north-western countries, and by the morning of the 17th a long anticyclonic band had been formed over England, the North Sea, and Scandinavia. During the remainder of the week this system increased steadily both in size and height until it embraced the greater part of the Continent, so that while Easterly or North-Easterly winds prevailed in the south, Southerly or South-Westerly winds were reported in the extreme west and north-west, and variable breezes in all the more central regions. Hard frost also set in over Russia and central Europe, and at the close of the week the cold weather was spreading over England.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 296.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	2·1	?	4	?	TENBY *	11·5 *	?	22 *	?
OSWALDKIRK (Yorkshire)	9·0	?	18	?	NEWQUAY	11·0	?	20	?
WORKSOP	4·6	− 2·5	9	− 5	TORQUAY *	14·9 *	?	27 *	?
THURCASTON (Leicestershire)					ARLEY COTTAGE (County Cavan)	3·9	?	8	?
EASTBOURNE	26·7	?	49	?	GUERNSEY *	26·3 *	?	47 *	?

* The values at Torquay, Tenby and Guernsey are obtained by Jordan's Photographic Recorder.

REPORTS received too late for insertion in their proper places.

DATE OF REPORT.	NAMES OF STATIONS.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each Day.	Of Lowest each Day.	For whole of each Day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-Degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
Week Ending Sept. 5th.	Hillington	67	38	65·8	47·2	56·1	−1·6	92	0	2	0·81	−0·29	—	—	—	—
" " " 19th.	Hillington	81	41	69·9	51·3	60·2	+5·2	127	0	3	0·64	0·00	24·8	−1·3	21	−2
" " " 26th.	Eastbourne	—	—	—	—	—	—	—	—	—	—	—	20·0	?	24	?
" " " "	Newquay	—	—	—	—	—	—	—	—	—	—	—	27·3	?	33	?
" " October 17th.	Blackpool	61	42	57·1	44·9	50·8	+1·9	62	0	2	1·14	+0·22	?	?	?	?
" " " "	Llandudno	59	40	53·2	44·6	49·7	−1·2	54	0	7	2·10	+1·25	14·4	−2·6	19	−4
" " " "	Waterford	58	35	54·0	39·6	46·6	−4·4	42	7	5	1·90	+1·09	—	—	—	—
" " " "	Killarney	53	32	50·0	39·9	45·0	−1·9	30	6	2	0·07	?	—	—	—	—
" " Nov. 7th.	Foynes	51	30	46·4	36·0	41·2	−3·7	12	24	6	1·44	—	—	—	—	—
" " " 14th.	Brookeborough	48	24	41·8	30·2	36·0	−3·9	0	42	7	0·94	−0·08	—	—	—	—
" " " 2 th.																

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 51.] *Third Series.* WEEK ENDING SATURDAY, 26TH DECEMBER, 1891. [*Price 6d.* [*Annual subscription, post paid*, £1 10s. 0d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 302.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	52	29	45·5	35·7	40·8	3 above.	10	+ 5	26	− 6	2075	+204	859	+107
	1. SCOTLAND, EAST -	50	16	41·0	28·3	34·9	2 below.	0	− 5	50	+11	2282	− 74	990	+172
	2. ENGLAND, N.E. - -	45	13	34·5	22·1	28·5	9 below.	0	− 6	95	+61	2429	− 97	838	+155
	3. ENGLAND, EAST -	47	13	35·8	20·3	28·4	9 below.	0	− 7	95	+54	2881	− 45	919	+137
	4. MIDLAND COUNTIES	48	9	33·5	18·5	26·3	11 below.	0	− 8	110	+69	2779	− 88	935	+145
	5. ENGLAND, SOUTH -	50	17	38·3	25·2	32·0	7 below.	0	−12	70	+39	3118	− 98	712	+137
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	52	24	42·9	34·2	38·7	1 below.	3	− 6	29	+ 1	2550	+ 96	626	+ 50
	7. ENGLAND, N.W. -	49	15	36·7	25·2	31·2	7 below.	0	− 9	76	+47	2701	+ 36	624	+ 67
	8. ENGLAND, S.W. -	52	11	42·2	29·8	36·2	5 below.	1	−13	44	+23	2905	−130	527	+113
	9. IRELAND, NORTH -	52	20	44·2	33·3	39·0	1 below.	6	− 5	34	+ 8	2647	+ 22	562	+ 50
	10. IRELAND, SOUTH -	55	24	45·5	34·1	40·0	2 below.	10	− 8	32	+10	2975	− 35	443	+ 48
	— CHANNEL ISLANDS -	52	26	45·2	35·1	40·3	5 below.	9	−16	27	+20	3497	− 9	194	+ 51

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 302.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.								
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH -	2	3	10 less.	235	− 5	51·3	+ 2·7	4	− 5	8	−13	1146	− 2	26	− 1
	1. SCOTLAND, EAST -	1	1	5 less.	179	−17	29·9	− 1·3	14	+ 8	29	+15	1304	− 32	30	− 1
	2. ENGLAND, N.E. - -	1	less than ½.	6 less.	177	− 6	24·5	− 2·0	4	− 5	9	− 8	1208	− 27	28	0
	3. ENGLAND, EAST -	2	1	4 less.	192	+11	26·3	+ 0·5	13	+ 7	24	+12	1418	− 35	33	− 2
	4. MIDLAND COUNTIES-	1	1	5 less.	187	+10	30·1	+ 1·4	8	0	14	+ 1	1336	− 5	31	0
	5. ENGLAND, SOUTH -	2	2	4 less.	185	+12	33·0	+ 5·2	21	+ 9	38	+16	1547	+ 92	36	+ 3
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST -	2	6	7 less.	199	− 7	48·2	− 1·7	4	− 3	9	− 4	1359	+ 42	31	+ 1
	7. ENGLAND, N.W. - -	2	2	6 less.	180	−13	37·5	+ 2·6	11	+ 4	22	+ 9	1246	− 56	29	− 1
	8. ENGLAND, S.W. - -	2	4	6 less.	193	− 8	43·8	+ 3·1	15	+ 5	27	+11	1598	+ 22	37	+ 1
	9. IRELAND, NORTH -	2	2	6 less.	218	− 7	34·2	− 2·3	17	+ 8	33	+16	1342	+117	31	+ 3
	10. IRELAND, SOUTH -	2	5	4 less.	198	− 8	40·4	+ 1·7	22	+11	42	+22	1473	+ 50	34	+ 1
	— CHANNEL ISLANDS -	3	3	6 less.	195	−20	36·1	+ 2·5	36	+22	65	+42	2022	+172	47	+ 4

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather during this week was very cold and dry over England, with thick fogs at the inland stations, but with fine, bright weather on the coast. Over Ireland and Scotland the conditions, though generally dry, were less wintry, while in the extreme north-west slight rain was experienced at times. Towards the end of the period the weather became milder and damper in all parts of the Kingdom.

Temperature was 3° above the mean in Scotland N., but below it in all other districts. In Ireland and the east and west of Scotland the deficit was only 1° or 2°, but over England it was much greater, amounting to 7° in England S. and N.W., 9° in England E., 10° in England N.E., and 11° in the Midland Counties. The highest of the maxima, which were registered on the last day of the period, ranged from 55° in Ireland S. to 45° in England N.E. During the middle part of the week the daily maxima over all the more central parts of England were generally below 30° and at some stations considerably lower; at Bawtry the maximum reading on the 22nd was no higher than 16°, and at York the thermometer did not rise above 20°. The lowest of the minima were recorded at most stations either on the 23rd or 24th, when the thermometer fell to 9° in the Midland Counties (at Churchstoke), to 11° in England S.W., and to between 13° and 20° in most other districts; in the Channel Islands, however, the temperature did not fall below 26°.

Rainfall was less than the mean in all districts, the fall in most cases being very slight.

Bright Sunshine varied greatly in different localities, but was, upon the whole, above the mean for the time of year. In some parts of inland England—notably in London and at York—it was almost entirely absent. The percentage of the possible duration ranged from 65 in the Channel Islands, 42 in Ireland S., 38 England S., and 33 in Ireland N., to 14 in the Midland Counties, 9 in England N.E. and Scotland W., and to only 8 in Scotland N.

Barometer and Wind.—The anticyclone which appeared during the previous week continued in our neighbourhood until the 25th, when it gave way quickly, and the calms and variable airs which had accompanied it were succeeded by a fresh or strong current of air from South and South-West, which soon spread over the entire Kingdom.

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II.—DATA from which the SUMMARY on page 301 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	49	40	46·9	42·1	44·6	+ 5·7	18	0	2	0·05	−0·88	*	*	*	*
	Stornoway	49	40	47·6	41·6	44·7	+ 6·1	21	1	5	0·33	−0·93	0·6	− 5·5	1	−13
	Wick	47	32	45·3	36·6	41·1	+ 3·6	9	22	0	—	−0·66	*	*	*	*
	Lairg Ⓢ	48	20	43·9	26·1	35·4	− 0·2	5	40	1	0·01	−0·87	*	*	*	*
	Glencarron Ⓢ	52	29	45·5	34·6	40·3	+ 3·1	10	30	4	0·70	−1·48	*	*	*	*
	Fort Augustus Ⓢ	50	27	44·5	33·6	39·3	+ 1·3	7	33	3	0·31	−0·74	5·9	?	13	?
	Fort William Ⓢ	51	28	44·6	35·4	40·2	+ 1·0	7	26	2	1·01	−1·09	4·3	?	9	?
1. SCOTLAND, E.	Nairn	50	25	45·9	30·0	38·3	+ 0·9	11	47	1	0·01	−0·43	*	*	*	*
	Aberdeen	46	22	38·7	27·6	33·4	− 3·7	0	60	1	0·03	−0·67	16·3	+ 7·1	35	+15
	Braemar Ⓢ	44	16	38·7	27·4	33·3	− 0·9	0	61	2	0·37	−0·29	12·0†	? †	26†	?†
	Ochtertyre Ⓢ	46	25	43·1	27·6	35·7	− 0·5	3	54	2	0·26	−0·72	*	*	*	*
	Leith	49	27	42·4	31·9	37·4	− 1·5	1	37	1	0·05	−0·37	*	*	*	*
	Marchmont Ⓢ	40	19	37·4	25·1	31·5	− 4·7	0	74	0	—	−0·69	17·8	?	38	?
2. ENGLAND, N.E.	Alnwick Castle	40	21	36·7	25·7	31·4	− 6·2	0	74	0	—	−0·68	*	*	*	*
	Durham	43	14	33·1	19·6	26·6	−10·4	0	108	1	0·02	−0·60	6·8	− 2·5	14	− 5
	Shields	45	19	37·9	23·4	30·9	− 7·4	0	78	1	0·01	−0·71	*	*	*	*
	Scarborough Ⓜ	43	18	32·7	22·2	27·7	−10·8	0	100	1	0·01	−0·59	*	*	*	*
	York	45	13	30·0	16·4	23·5	−13·8	0	130	1	0·08	−0·42	0·0	− 5·4	0	−11
	Spurn Head	43	19	36·4	25·0	30·9	− 7·7	0	78	1	0·01	−0·53	*	*	*	*
3. ENGLAND, E.	Hillington Ⓜ	44	13	32·9	19·3	26·4	−10·4	0	109	1	0·07	−0·45	13·8	+ 5·0	27	+10
	Yarmouth	45	24	37·7	25·7	31·9	− 5·6	0	71	1	0·03	−0·54	*	*	*	*
	Geldeston	47	17	39·4	22·4	31·2	− 6·6	0	76	2	0·03	−0·42	17·4	+ 6·6	33	+13
	Cambridge	46	14	34·6	17·3	26·3	−10·9	0	110	1	0·04	−0·36				
	Rothamsted	47	14	34·5	16·9	26·1	−11·2	0	111	3	0·21	−0·35	7·1	?	13	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	45	12	29·3	16·9	23·4	−13·8	0	130	1	0·04	−0·48	*	*	*	*
	Loughborough	48	12	34·6	17·3	26·3	−11·3	0	110	1	0·07	−0·43	*	*	*	*
	Stamford (Ketton Hall)	47	11	35·1	15·7	25·8	−11·3	0	113	2	0·04	?	*	*	*	*
	Cheadle Ⓜ	45	15	34·6	22·4	28·7	− 7·7	0	93	1	0·10	−0·58	*	*	*	*
	Churchstoke Ⓜ	47	9	34·7	18·9	27·2	−10·8	0	104	2	0·25	−0·13	8·7	− 0·1	17	+ 1
	Hereford Ⓜ	47	14	32·4	19·0	26·0	−12·2	0	112	1	0·12	−0·40	*	*	*	*
	Cirencester	47	14	34·9	18·7	27·1	− 9·1	0	104	1	0·20	−0·46	6·4	− 2·6	12	− 5
	Oxford	47	16	32·0	19·3	25·9	−12·3	0	113	2	0·13	−0·35	2·7	− 5·7	5	−11
5. ENGLAND, S.	London	48	19	36·3	22·0	29·4	− 9·6	0	88	2	0·17	−0·33	0·4†	− 4·4†	1†	− 7†
	Strathfield Turgiss Ⓜ	45	17	30·2	19·6	25·1	−12·5	0	118	2	0·16	−0·34	*	*	*	*
	Dungeness	48	18	41·6	25·7	34·0	− 6·0	0	56	2	0·10	−0·58	*	*	*	*
	Hastings (St. Leonards)	48	27	40·2	30·1	35·4	− 4·5	0	46	3	0·20	−0·45	51·5	+19·0	58	+35
	Southampton	49	21	38·8	26·2	32·8	− 7·0	0	64	2	0·36	−0·36	21·6	+11·4	40	+21
	Hurst Castle	50	25	42·6	27·3	35·3	− 5·3	2	54	2	0·29	−0·34	*	*	*	*
	Stowell Ⓜ	48	22	38·1	25·5	32·1	− 6·2	0	69	2	0·35	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	52	33	46·3	37·1	41·9	+ 2·0	12	22	2	1·24	−0·84	*	*	*	*
	Glasgow	46	28	41·0	34·3	37·8	− 0·3	0	29	1	0·08	−0·84	4·0	+ 0·2	9	+ 2
	Ardrossan	48	32	45·4	36·3	41·0	+ 0·9	10	23	1	0·32	−0·56	*	*	*	*
	Glenlee Ⓢ	47	24	38·9	29·5	34·4	− 2·7	0	53	2	1·22	−0·23	*	*	*	*
	Douglas (Isle of Man)	49	27	43·1	33·7	38·6	− 2·2	3	31	3	0·18	−0·83	4·5	− 5·1	9	− 9
7. ENGLAND, N.W.	Newton Reigny	45	17	35·1	20·4	28·0	− 7·9	0	98	2	0·29	−0·50	14·0	+ 7·9	29	+17
	Stonyhurst	45	15	33·7	22·4	28·3	− 9·1	0	96	2	0·27	−0·73	7·2	+ 1·4	14	+ 2
	Blackpool Ⓜ															
	Manchester	47	23	35·1	26·8	31·1	− 6·3	0	76	2	0·08	−0·72	*	*	*	*
	Liverpool Obsy. (Bidston)	46	21	35·4	23·7	29·8	− 9·6	0	85	1	0·07	−0·49	*	*	*	*
	Llandudno Ⓜ															
	Holyhead	49	29	44·1	32·7	38·6	− 3·9	6	35	2	0·23	−0·60	*	*	*	*
8. ENGLAND, S.W.	Llandovery	49	11	37·4	17·0	27·6	−13·0	0	101	2	0·60	−0·61	*	*	*	*
	Pembroke	50	26	42·7	33·1	38·1	− 5·2	2	33	2	0·36	−0·54	12·1	+ 1·6	23	+ 3
	Arlington (N. Devon)	49	22	41·9	26·9	34·7	− 5·3	0	51	2	0·49	−0·73	*	*	*	*
	Cullompton Ⓜ	49	22	39·2	24·8	32·3	− 7·0	0	68	2	0·36	−0·42	11·7	+ 3·8	22	+ 8
	Falmouth	52	36	45·4	38·2	41·9	− 2·0	10	16	3	0·38	−0·82	19·9	+ 7·9	36	+15
	Plymouth	51	28	43·7	33·4	38·8	− 3·1	5	33	3	0·42	−0·48	20·5	+ 9·3	3	+17
	Prawle Point	50	32	45·0	34·9	40·2	− 2·1	8	29	3	0·20	−0·61	*	*	*	*
9. IRELAND, N.	Malin Head	50	32	44·4	35·6	40·2	+ 0·7	7	25	1	0·10	?	*	*	*	*
	Londonderry	50	30	42·8	33·8	38·5	− 0·8	2	31	2	0·10	−0·80	*	*	*	*
	Mullaghmore	52	33	47·0	37·0	42·2	+ 0·1	22	14	2	0·13	−0·87	*	*	*	*
	Belmullet	50	32	47·3	38·6	43·1	− 0·4	22	10	4	0·42	?	*	*	*	*
	Markree Castle	49	26	41·5	31·3	36·6	− 2·1	0	38	3	0·28	−0·51	12·8	+ 4·0	26	+10
	Brookeborough												*	*	*	*
	Armagh	50	20	41·7	28·7	35·5	− 2·6	0	46	2	0·16	−0·47	19·0	+11·0	38	+23
	Donaghadee	50	29	44·4	31·3	38·1	− 2·9	7	41	2	0·20	− ·43	*	*	*	*
	Edgeworthstown	49	27	44·7	30·4	37·8	+ 0·1	8	4	2	0·13	−0·58	*	*	*	*
10. IRELAND, S.	Dublin	55	25	41·3	30·5	36·1	− 4·8	0	41	2	0·05	−0·48	20·6	+ 9·5	40	+19
	Parsonstown	50	25	43·7	30·1	37·2	− 1·8	5	45	2	0·27	−0·42	25·6	+15·4	50	+31
	Kilkenny	50	24	44·3	30·1	37·5	− 2·4	6	45	2	0·33	−0·42	*	*	*	*
	Waterford	51	30	45·8	35·3	40·8	− 1·2	11	28	2	0·42	−0·52	*	*	*	*
	Roche's Point	50	33	47·1	40·1	43·7	+ 0·4	20	5	2	0·70	−0·45	*	*	*	*
	Valencia	53	32	49·4	40·0	44·9	0·0	29	6	2	0·52	−0·84	19·1	+ 8·2	36	+16
	Killarney	52	25	46·9	33·6	40·5	− 0·5	14	35	2	1·20	?	*	*	*	*
	Foynes	54	28	45·8	32·9	39·6	− 2·7	11	36	2	0·31	?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	52	38	48·4	40·1	44·4	− 2·1	25	5	2	0·33	−0·57	*	*	*	*
	Jersey	49	26	41·9	30·0	36·2	− 6·8	0	41	3	0·25	−0·56	36·3	+22·8	65	+42

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

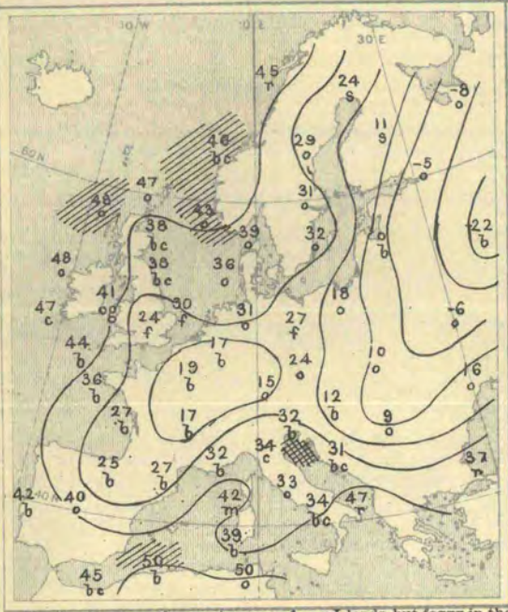
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

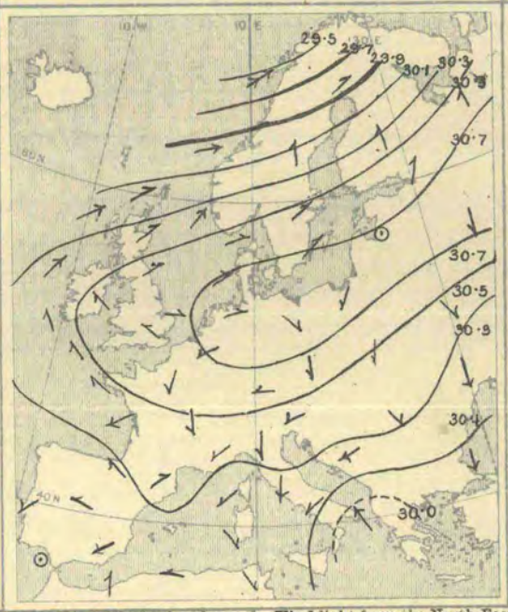
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 20th December.

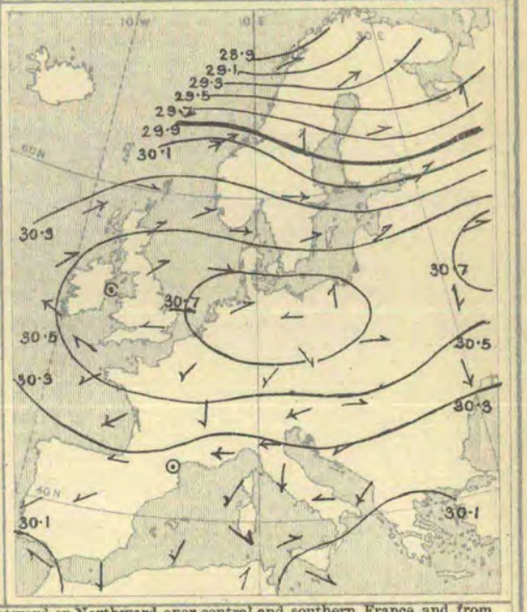
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather fine over the greater part of our Islands, but foggy in the south-east of England and on our extreme north and north-west coasts; fine also over France, Spain, Austria, Algeria, and the Mediterranean. Dull in most parts of northern, central, and eastern Europe, with rain in the north of Norway and snow in Finland, as well as at Kharkov and Pesaro. No important change occurring during day, but snow falling in some parts of northern and central Russia.

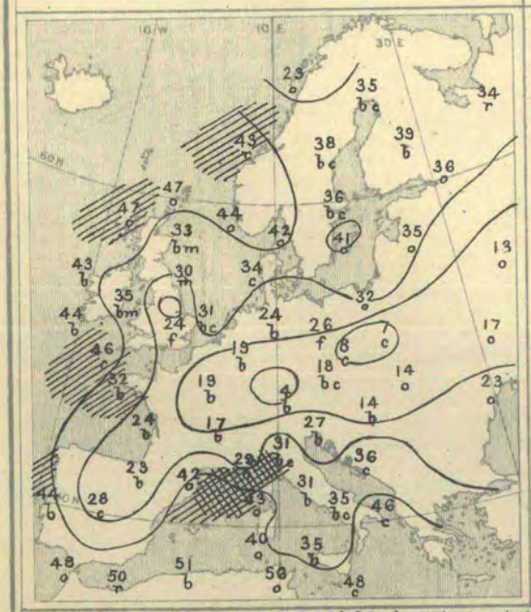
Temperature highest, (1) 55° at San Fernando, 50° at Algiers and La Calle, and 47° at Brindisi; (2) 48° at Stornoway and Belmullet, and 47° at Sumburgh Head, Valencia Island, and Roche's Point. Lowest, −22° Fahr. at Moscow, −6° at Kiev, −5° at St. Petersburg, 0° (zero) at Riga, and +8° at Archangel; below 30° over the greater part of Russia and Austria, below 25° over central England, and below freezing point over all the more central parts of Europe. Daily maxima over the inland parts of England varying between 31° and 35°, but thermometer exceeding 45° on our extreme south-western, western, and northern coasts, and reaching 50° at Valencia Island. Remaining below 50° all day in Italy, but just touching that point in the extreme south of France and reaching 60° at some of the Algerian stations.

Wind light from the North-Eastward or Northward over central and southern France, and from the Eastward or South-Eastward over Spain, the Bay of Biscay, the Channel, and the greater part of England. Fresh from the Southward in Ireland; moderate from the South-Westward in Scotland, and strong from the same quarter over Scandinavia and northern Russia, with a gale at Bodö. Light from the Northward over Austria, eastern Germany, and the central and southern parts of Russia. Cyclonic circulation of strong winds reported over Italy and the Adriatic. Gale from the South-Westward springing up later over the Gulf of Finland, and also at Christiansund; no important change occurring elsewhere.

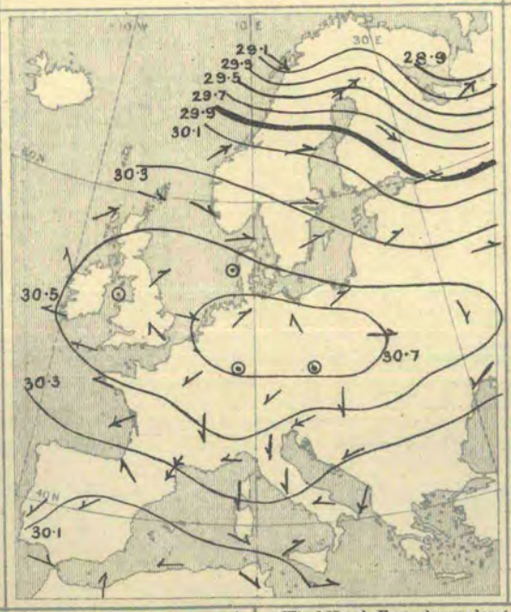
Barometer highest, 30·7 ins. and upwards in a long band extending westwards from central and northern Russia to Germany and the Netherlands. Lowest, 29·6 ins. and less in a large and rather deep depression lying off the coasts of Finmark; 30·0 ins. and less in a shallower disturbance lying off the south of Italy. Norwegian depression subsequently becoming much deeper and barometer falling rapidly in the north of Scandinavia; no decided change taking place in other parts of Europe.

Monday, 21st December.

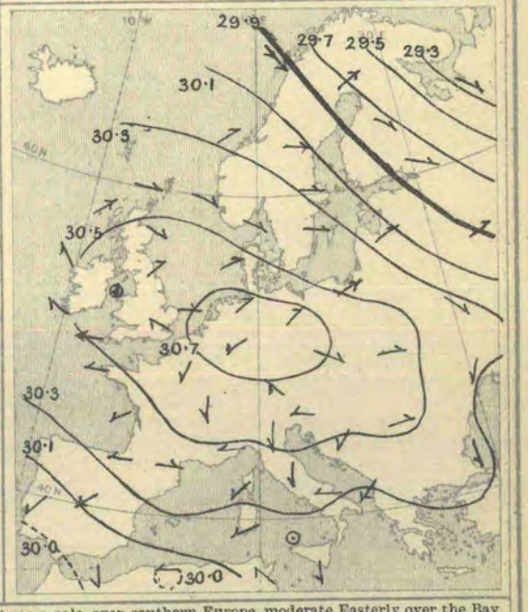
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather dry and quiet over the British Islands, western, central, and southern Europe—fine and bright in most places, but very foggy over the inland parts of England and at Berlin; squally, changeable, and unsettled over northern Europe, with rain in places. Some rain later at Christiansund in the north, and at Perpignan in the south. Thick cold fogs continuing over England, and much hoar frost. Snow falling at some of the Russian stations; aurora seen at Haparanda.

Temperature risen considerably over central Russia, and in some parts of Germany, fallen over Western Europe. Highest morning readings, 47° at Sumburgh Head and Stornoway, 46° at Scilly, and 44° at Skudesnaes, Ardrossan, and Lisbon. Lowest, (1) 4° at Munich, 14° at Vienna, and 17° at Lyons; (2) 19° at Loughborough, 20° at Cambridge, and less than 25° at our inland stations generally; (3) 7° at Warsaw, 8° at Breslau, 13° at Moscow, 14° at Lemberg, 15° at Kharkov. Rising later to between 33° and 40° over many parts of central England, but (to 27° only at York, and 29° Loughborough) reaching 50° at Valencia Island, and 45° at many of our western stations. Exceeding 50° over southern Italy and on the coast of the Spanish Peninsula.

Wind North-Easterly, moderate to a gale, over southern Europe, moderate Easterly over the Bay of Biscay, light in the Channel, moderate South-Easterly in Ireland, light South-Westerly in Scotland, and strong South-We-terly (North-West to South-West) over northern Europe. Nearly calm over England, the Netherlands, and Germany. Inclined to freshen from South-East over Ireland later—veering to the Westward and North-Westward over northern Europe and increasing to a gale at Bodö.

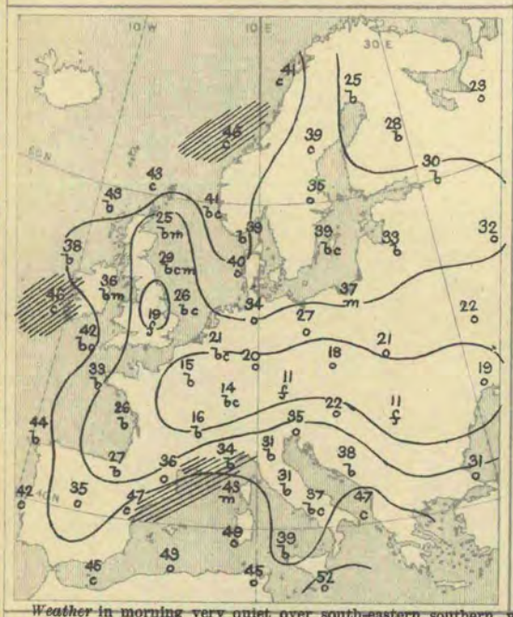
Barometer highest, 30·8 ins. to 30·5 ins. in a large anticyclone lying over Ireland, England, France, Germany, Austria-Hungary, and southern Russia. Lowest, 29·0 ins. and less in the extreme north of Europe (gradients steep over the northern parts of Scandinavia and Russia), and 30·1 ins. and less over Algeria and the southern half of Spain. Inclined to fall a little in Ireland later, steady over England. Depression in far north moving rapidly to the eastward, and barometer rising quickly in the north of Scandinavia.

Judd & Co Lt Lith.

III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 22nd December.

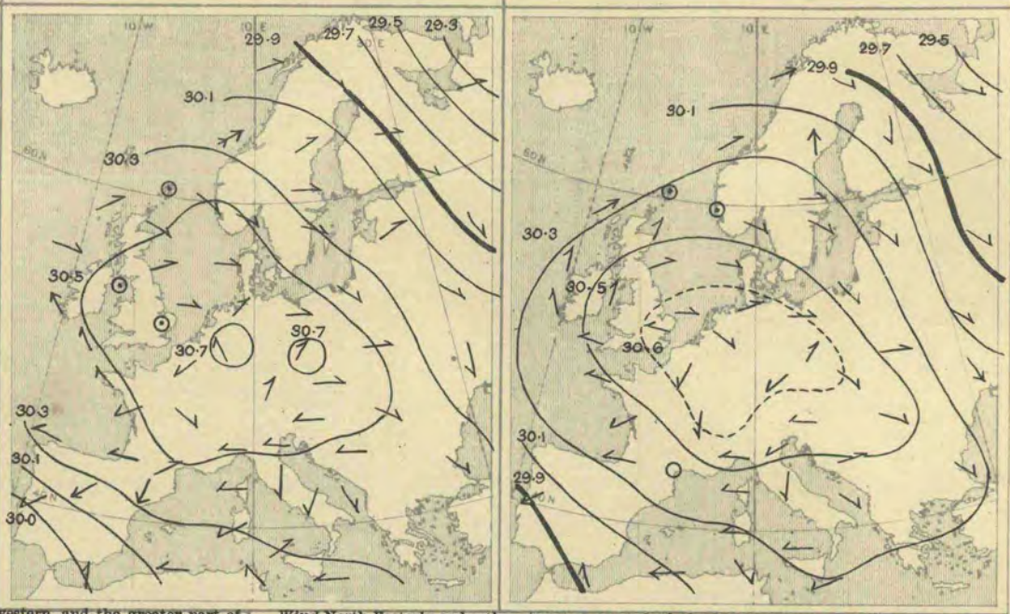
Temperature and Weather. — 8 a.m.



Weather in morning very quiet over south-eastern, southern, western, and the greater part of northern Europe; clear and bright in most places, but very foggy over England and at one or two continental stations; dull over central Russia and south-eastern Europe. Rain later in the north-west of Norway, and snow in the south of Russia; no important change elsewhere.

Temperature very low in almost all places; highest morning values 52° at Malta, and exceeding 40° at many other Mediterranean stations, as well as on the Portuguese coast, south-west and extreme north of our islands and the west of Norway. Much lower elsewhere, and as low as 11° to 20° over the greater part of central Europe and the inland parts of England, and 23° to 30° over Finland and northern Russia. Rising later to between 40° and 49° at several of our western and northern stations, but remaining below the freezing point over central England all day. Exceeding 70° in the southern parts of France and Italy, and exceeding 60° in Algeria; the highest reading of all being 66° at Nemours.

Barometer and Wind.

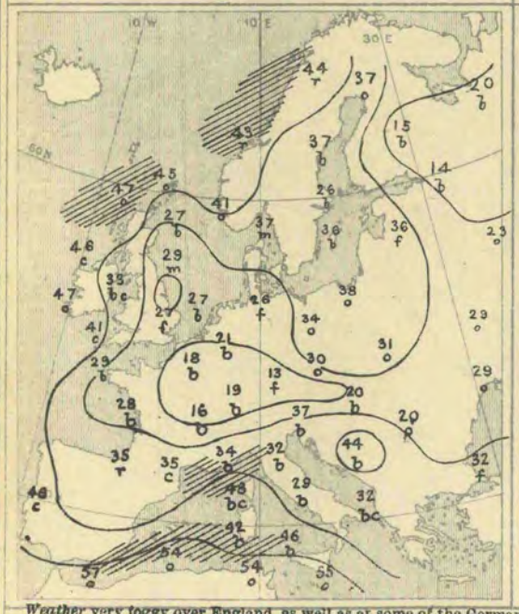


Wind North-Easterly and rather strong at several of the Mediterranean and Spanish stations; Easterly, moderate, over the Bay of Biscay; South-Easterly to South-Westerly in Ireland and Scotland, very strong at Valencia. South-Westerly in Norway (strong gale at Christiansund), Westerly to North-Westerly over the Baltic, Finland, and northern Russia; calm, or nearly so, over England, France, and Germany. Decreasing in force in Ireland and Norway later, no change elsewhere.

Barometer highest, 30·7 ins. and more to 30·5 ins. in a large anticyclone covering nearly the whole of western Europe, having its centre near Brussels. Lowest, 29·4 ins. and less in a low-pressure area over northern Russia, and below 30·0 ins. over the south-west of Spain. Gradients nowhere steep and in most places slight. Falling over our Islands and their neighbourhood later, but very little change taking place in the general distribution of pressure.

Wednesday, 23rd December.

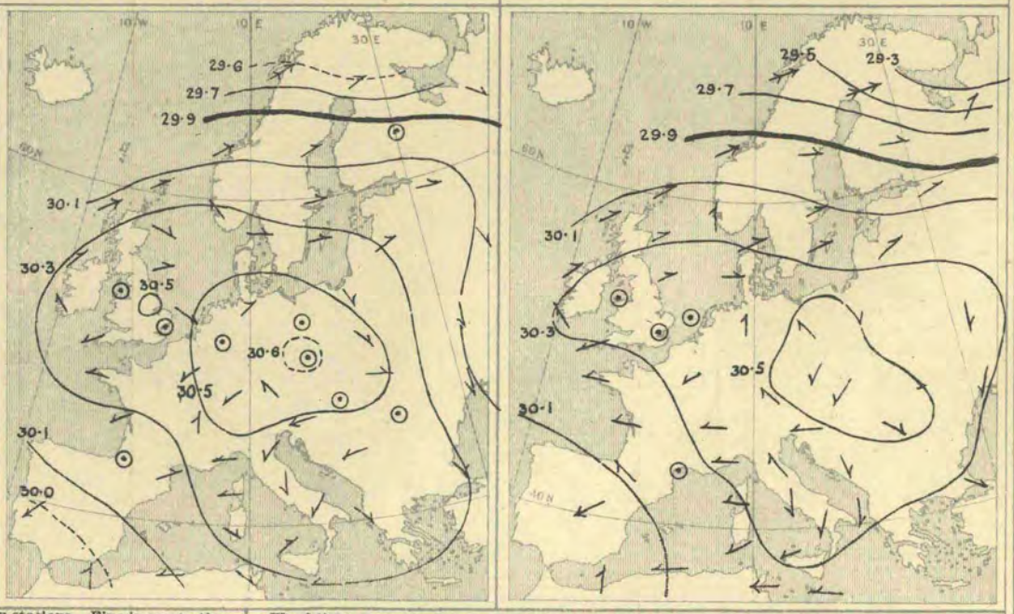
Temperature and Weather. — 8 a.m.



Weather very foggy over England, as well as at some of the German stations. Fine in most other parts of Europe, but dull in many of the central and eastern countries, with snow at Breslau. A little rain falling later in the Hebrides, the extreme west of Ireland, and the west of Norway, and larger amounts in the south of France.

Temperature highest, (1) 57° at Nemours, 55° at Malta, and 54° at Oran, Algiers, and La Calle; (2) 47° at Stornoway and Valencia Island, and 46° at Belmullet and Roche's Point. Lowest, (1) 14° at Loughborough, 15° at York, and 16° at Oxford; (2) 13° at Munich, 16° at Lyons, and 18° at Paris; (3) 14° at St. Petersburg and 15° at Kuopio; hard frost prevailing in most parts of England and central and northern Europe. Daily maxima below the freezing point over our midland counties, and below 40° in many parts of France. Thermometer exceeding 50° in the southern parts of France and Italy, and exceeding 60° in Algeria, the highest reading of all being 66° at Algiers.

Barometer and Wind.



Wind light from the Eastward over France and the extreme south of England, moderate from the Southward in Ireland, and from the South-Westward in the north of Scotland. South-Westerly also over the greater part of Scandinavia, with a gale at Bodö; light from the North-Westward or Northward in Russia and from the North-Eastward over Italy. Calm or variable over central England, the Netherlands, Germany, and Austria; variable also in Algeria. No important change occurring during day.

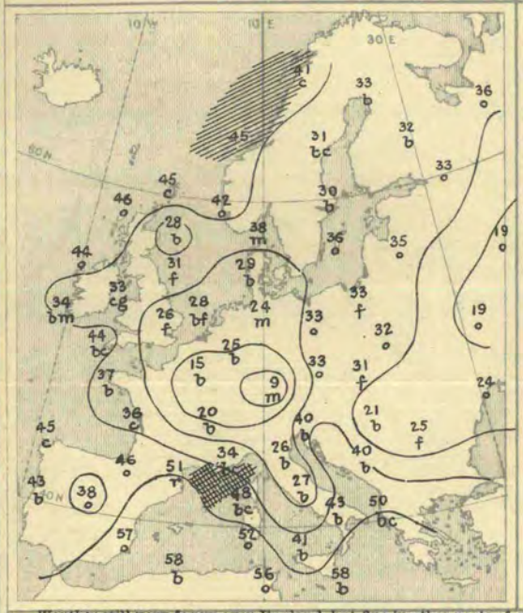
Barometer highest, 30·1 ins. to 30·5 ins. or more in a large anticyclone covering the greater part of Europe, its central portion being located over the Netherlands, Germany, Austria, and Switzerland. Lowest, 29·6 ins. and less in a depression lying over the extreme north of Scandinavia, 30·0 ins. and less over the south of Spain. Barometer falling generally during day, and anticyclone becoming somewhat reduced in height.

Judd & Co Ltd Lith.

III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 24th December.

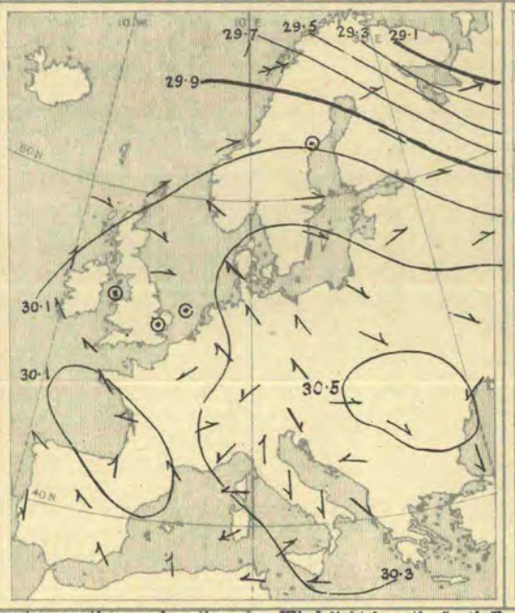
Temperature and Weather. 8 a.m.



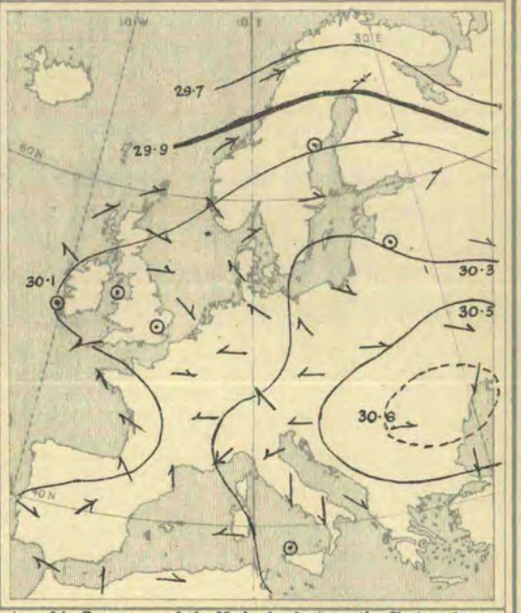
Weather still very foggy over England, but fine in other parts of western, northern, and southern Europe. Dull over Russia, Germany and Austria with fog at Cracow and Hermanstadt; rain falling at Christiansund. Heavy rain falling later in the extreme south of France, with lightning at Perpignan; smaller amounts at night in the Hebrides and west of Ireland.

Temperature highest, (1) 59° at La Calle, 58° at Algiers and Malta, and 56° at Tunis; (2) 46° at Stornoway, 45° at Christiansund and Sumburgh Head, and 44° at Belmullet. Lowest 5° at Munich, 15° at Paris and Belfort, 18° at Cambridge, and 19° at Le Mans; frost prevailing over nearly the whole of Russia and central Europe, as well as over a considerable portion of the United Kingdom. Daily maxima as low as 23° at York and Cambridge, 24° at Oxford, and 27° at Loughborough, and below 40° in most parts of Great Britain, but thermometer exceeding 50° in the south of France, and exceeding 60° in Algeria and Sicily, the highest reading of all being 68° at Algiers.

Barometer and Wind. 8 a.m.



6 p.m.

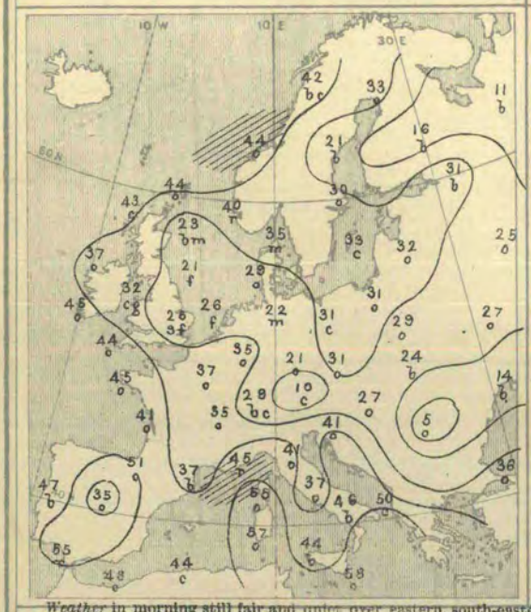


Wind light from the South-Eastward in Germany and the Netherlands, from the Eastward over Spain, France, and the extreme south of our Islands, from the Southward in the north of Ireland, and from the South-Westward in Scotland. Westerly over Scandinavia and central and northern Russia, with a gale at Bodö. Light from the Northward over the South of Russia and the greater part of Italy, variable in Tunis, Southerly in Algeria. No important change during day.

Barometer highest 30·1 ins. to 30·5 ins. and more, in a large anticyclone covering the greater part of Europe, its central portion being located over Austria. Lowest 29·2 ins. and less, in a deep depression passing eastwards over the extreme north of Russia; gradients steep in the far north. Barometer falling gradually during day in nearly all parts of western Europe, but no important change occurring in general distribution of pressure; depression in far north travelling away to the north-eastward.

Friday, 25th December.

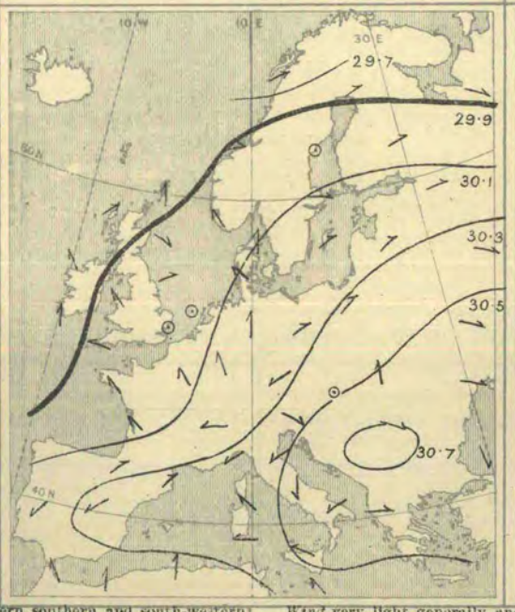
Temperature and Weather. 8 a.m.



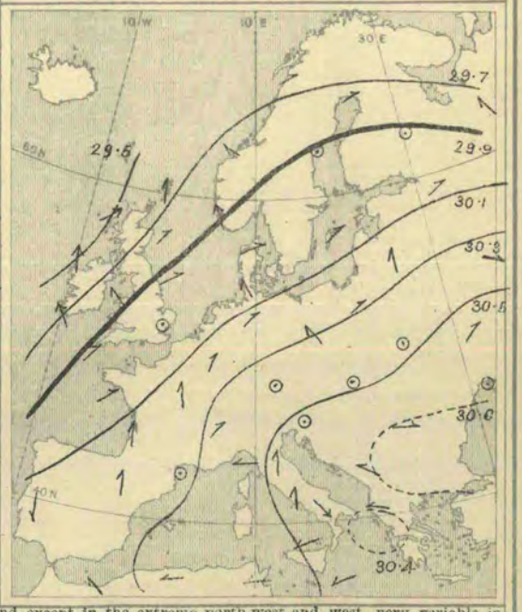
Weather in morning still fair and quiet over eastern, south-eastern, southern, and south-western Europe—clear and bright in many parts of the latter region; dull and unsettled in the west and north-west, with continued fog in many places, and a thick fall of drizzle and sleet over parts of the home and south-midland counties, which, freezing on the ground, formed a well-marked "silver thaw." Rain later—in small quantities over England and the north of Ireland, but in large quantities over the south of Ireland, and a considerable fall in the Riviera and north of Italy.

Temperature fallen again in many parts of the United Kingdom, but risen rapidly over France; fallen also over the Mediterranean. Morning readings exceeding 50° as very few stations, even over the Mediterranean, and below 40° again over the greater part of the United Kingdom. Lowest, 5° at Hermanstadt, 12° at Odessa, 19° at Cracow, 21° at Kharkov; (2) 11° at Archangel, 16° at Kuopio, 21° at Hernösand, and 25° at Moscow; (3) 17° at York, 21° at Snields and Spurn Head, 22° at Loughborough. Rising later to between 45° and 50° in many parts of the British Islands, to 55° and more in the south of France, and to 60° and more in the south of Italy and on the Algerian coasts.

Barometer and Wind. 8 a.m.



6 p.m.



Wind very light generally, and, except in the extreme north-west and west, very variable in direction; South-Easterly in the west of France, Southerly over Ireland, South-Westerly in the Hebrides, the west of Scotland, the north-west of Norway, and over the Baltic. Becoming Southerly at our western and north-western stations later and increasing greatly in force—blowing a moderate gale in the north-west of Ireland. Light South-Westerly breezes setting in over the north-west of France.

Barometer in morning, highest, 30·7 ins. to 30·4 ins. in an anticyclone covering south-eastern Europe, and exceeding 30·2 ins. in a "ridge" extending thence in a westerly direction over the Mediterranean, southern Europe, and the Spanish Peninsula. Lowest, 29·7 ins. and less over Lapland, and below 29·8 ins. over and off the west of Ireland. Gradients irregular in north-west. Falling fast at our western and north-western stations later and fall spreading eastwards.

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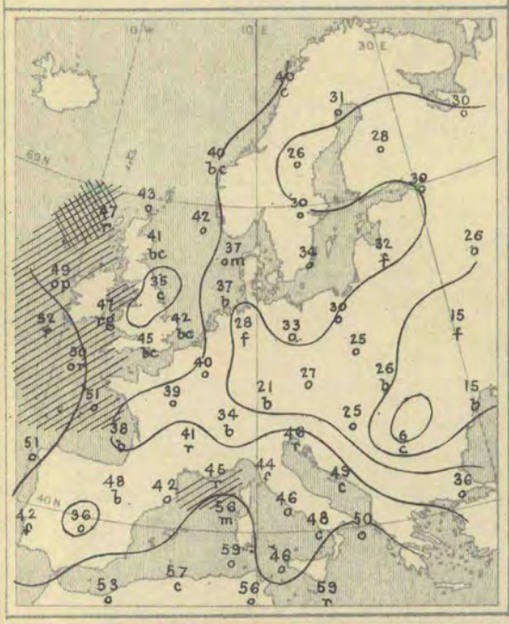
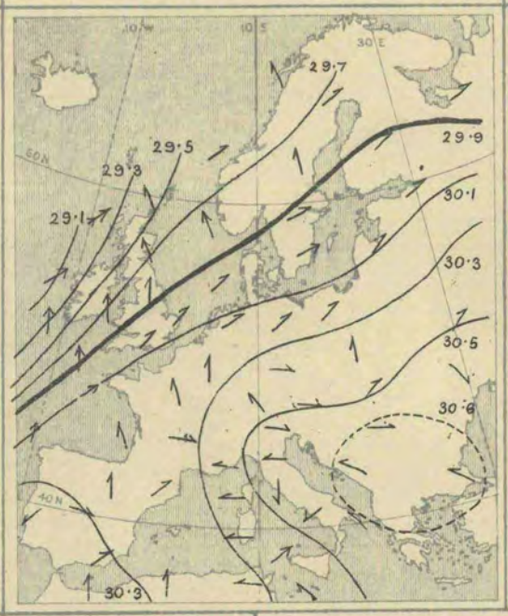
Saturday, 26th December.

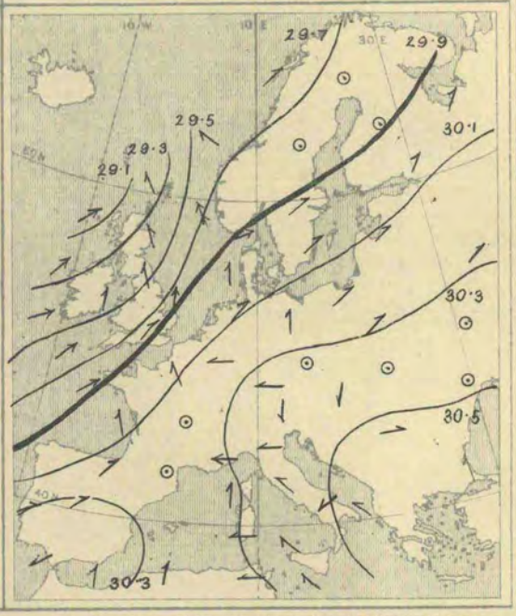
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fair and quiet over eastern, south-eastern, and central Europe. but more or less unsettled over the western and north-western countries, especially over the British Islands, but clear at several of the French stations. Rain at many of our western stations, fog over the Netherlands, and in some northern parts of France. Some rain at times in all parts of our Islands later, large falls in the south of France, and a considerable quantity in the north of Italy,

Temperature risen rapidly over the British Islands, and considerably in the north of France; frost completely broken over the United Kingdom. Morning readings exceeding 50° at most Mediterranean stations, as well as at Lorient, Brest, and Valencia Island, and exceeding 40° almost all over the British Islands. Lowest, 6° at Hermanstadt, 13° at Odessa, 15° at Nicolaieff and Kiev, and below 30° over central Europe and Russia generally. Rising to 50° in many parts of our Islands later, to nearly 60° in the south of France, and to more than 60° in the south of Italy, but not reaching 40° over Germany.

Wind light and anticyclonic over nearly the whole of the Continent, but South-Westerly to Southerly, moderate, over Scandinavia, and Southerly, fresh to a gale, over the British Islands; Easterly, moderate, in the south of France. Moderating in Ireland later, but increasing in strength over England, the North Sea, and Norway, and blowing a moderate gale at some of our Channel stations.

Barometer highest, (1) 30·6 ins. and more to 30·4 ins. in an anticyclone lying over south-eastern and many parts of central Europe; (2) 30·3 ins. over Algeria and the southern half of Spain. Lowest, 29·1 ins. and less in a depression off our north-western coasts. Gradients rather steep over the United Kingdom. Rising in Ireland, falling over Great Britain and western Europe later as the low-pressure area in the north-west "surged" eastwards and travelled north-eastwards.

Explanation of Charts.—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria, and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

GENERAL NOTES.

During the greater part of last week an anticyclonic system of considerable height embraced nearly the whole of Europe, the only depressions observed at the time being some large and deep disturbances which passed across the extreme northern parts of Scandinavia and Russia. The winds were light from the Eastward over the more southern, and from the Westward over the more northern countries, while in the central regions calms or light variable airs were reported. Hard frost prevailed over a considerable portion of our Islands, together with the whole of central, northern, and eastern Europe, with thick fogs in many places, the latter being especially dense and persistent in London. Towards the close of the week, however, the anticyclone moved away gradually in an easterly direction, and on the 25th a series of depressions began to pass northwards along the west coasts of our Islands. These disturbances soon occasioned a decided Southerly current of wind over the United Kingdom, and between the 25th and 26th a rapid rise of temperature took place, the fog cleared, and the weather became damp and rainy. By the end of the period cyclonic conditions had extended over the whole of north-western Europe, but in the central and eastern countries dry frosty weather continued to prevail.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 302.

STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	STATIONS.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	8·0	?	17	?	TENBY	14·6 *	?	28 *	?
OSWALDKIRK (Yorkshire)	5·8	?	12	?	NEWQUAY	28·1	?	51	?
WORKSOP	4·0	− 3·4	8	− 6	TORQUAY	9·9 *	?	18 *	?
THURCASTON (Leicestershire)	15·5	+10·3	30	+20	ARLEY COTTAGE (County Cavan)	17·8	?	36	?
BRIGHTON	23·1	?	43	?	GUERNSEY	30·1 *	?	54 *	?
EASTBOURNE	28·7	?	53	?					

* The values at Tenby, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

Judd&C° Lᵗᵈ Lith.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. VIII. No. 52.] *Third Series.* WEEK ENDING SATURDAY, 2ND JANUARY, 1892. [*Price 6d.* [*Annual subscription, post paid, £1 10s. 0d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years' observations (1871–90). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the ten years 1881-90. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty-five years 1866–90, but the *Mean numbers of Rainy Days* are those for the ten years 1881-90, only. BRIGHT SUNSHINE.—*The Mean values* employed are those for the corresponding periods in the ten years 1881-90.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

Temperature of the Air.

	DISTRICTS. (See p. 308.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4th, 1891. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	50	29	42·7	34·7	38·9	1 above.	2	− 5	27	− 5	2077	+200	886	+103
	1. SCOTLAND, EAST	51	28	42·1	33·0	37·7	1 above.	0	− 7	33	− 6	2282	− 80	1023	+163
	2. ENGLAND, N.E.	50	29	43·6	34·4	39·2	1 above.	4	− 3	29	− 6	2433	− 99	867	+147
	3. ENGLAND, EAST	55	30	47·1	35·5	41·5	4 above.	14	+ 6	28	−13	2895	− 36	947	+119
	4. MIDLAND COUNTIES	55	26	47·1	35·8	41·7	4 above.	14	+ 5	27	−14	2793	− 80	962	+127
	5. ENGLAND, SOUTH	55	28	48·3	38·8	43·8	4 above.	26	+14	9	−22	3144	− 78	721	+110
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	50	32	45·1	37·6	41·6	2 above.	9	− 1	19	− 9	2559	+ 97	645	+ 41
	7. ENGLAND, N.W.	52	32	46·0	37·9	42·1	3 above.	18	+ 9	11	−18	2719	+ 47	635	+ 45
	8. ENGLAND, S.W.	55	29	48·4	40·1	44·4	3 above.	25	+10	5	−17	2930	−119	532	+ 89
	9. IRELAND, NORTH	54	30	45·2	36·0	40·8	1 above.	9	− 4	25	− 1	2656	+ 20	587	+ 50
	10. IRELAND, SOUTH	59	28	48·6	37·8	43·4	1 above.	27	+ 7	12	− 9	3002	− 25	455	+ 35
	— CHANNEL ISLANDS	54	39	51·0	45·7	48·5	4 above.	46	+22	0	− 8	3543	+ 15	194	+ 43

Rainfall.

	DISTRICTS. (See p. 308.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4th, 1891. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.	10ths of In.			Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	7	18	7 more.	242	− 3	53·1	+ 3·2
	1. SCOTLAND, EAST	5	9	2 more.	184	−16	30·8	− 1·4
	2. ENGLAND, N.E.	4	2	3 less.	181	− 6	24·7	− 2·4
	3. ENGLAND, EAST	5	6	1 more.	197	+12	26·9	+ 0·6
	4. MIDLAND COUNTIES	5	7	2 more.	192	+12	30·8	+ 1·5
	5. ENGLAND, SOUTH	5	6	0 (average)	190	+13	33·6	+ 5·2
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	6	18	5 more.	205	− 6	50·0	− 1·2
	7. ENGLAND, N.W.	6	13	6 more.	186	−11	38·8	+ 3·1
	8. ENGLAND S.W.	7	15	5 more.	200	− 5	45·3	+ 3·6
	9. IRELAND, NORTH	7	11	3 more.	225	− 4	35·3	− 2·0
	10. IRELAND, SOUTH	6	10	0 (average)	204	− 6	41·4	+ 1·8
	— CHANNEL ISLANDS	6	6	2 less.	201	−18	36·7	+ 2·3

Bright Sunshine.

	DISTRICTS. (See p. 308.)	For the Week. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.	From January 4th, 1891. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	3	− 3	6	− 5	1149	− 4	26	0
	1. SCOTLAND, EAST	13	+10	28	+23	1317	− 28	30	− 1
	2. ENGLAND, N.E.	17	+ 8	33	+17	1225	− 15	28	0
	3. ENGLAND, EAST	18	+ 8	34	+15	1435*	− 74	33	− 1
	4. MIDLAND COUNTIES	17	+ 9	32	+17	1353	+ 6	31	0
	5. ENGLAND, SOUTH	16	+ 6	29	+12	1563	+101	36	+ 3
Principal Grazing, &c., Districts.	6. SCOTLAND, WEST	14	+ 6	28	+15†	1373	+ 51	31	+ 1
	7. ENGLAND, N.W.	9	+ 1	18	+ 4	1255	− 52	28	− 2
	8. ENGLAND S.W.	13	+ 1	25	+ 5	1611	+ 25	37	+ 1
	9. IRELAND, NORTH	9	− 1	18	0	1351	+119	31	+ 3
	10. IRELAND, SOUTH	14	+ 2	26	+ 6	1492	+ 54	34	+ 1
	— CHANNEL ISLANDS	14	0	25	0	2036	+174	46	+ 3

Bright Sunshine.—For several of the stations there are no "mean" values available, and the "difference from the mean" in some of the districts is consequently that of only a few of the stations.

General Remarks.

Weather was unsettled and rainy in all parts of the Kingdom until the period drew towards its close, when it improved considerably over England, although showers continued to fall in Ireland and Scotland. Thunder and lightning occurred at some of our northern and north-western stations during the early part of the week.

Temperature was above the mean in all districts, the excess ranging from 1° in Ireland and the north and north-east of Great Britain to 3° or 4° in most parts of England. The highest of the maxima were recorded on December 30th in England and Ireland, and on irregular dates in Scotland, and varied from 50° in Scotland N. and W. and England N.E., to 55° over eastern, central, southern, and south-western England, and to 59° in Ireland S. The lowest of the minima were registered during the middle part of the week at most of the Scotch stations and on January 2nd in Ireland and England; they ranged from 26° to 32°, excepting in the Channel Islands, where the thermometer did not fall below 39°.

Rainfall was less than the mean in England N.E. and the Channel Islands, and about equal to it in England S. and Ireland S. In all other districts, however, there was an excess.

Bright Sunshine exceeded the mean in nearly all districts, the percentage of the possible duration ranged from 25 to 34 over the Kingdom generally, to 18 in England N.W. and Ireland N., and to only 6 in Scotland N.

Barometer and Wind.—During the greater part of the period the barometer was highest in the south and south-west, and depressions travelled northwards and north-eastwards along our north-western and northern coasts. South-Westerly winds were consequently most prevalent, and, as a rule, they were moderate in force, but during the 29th the wind increased considerably, and attained the force of a gale at the western and northern stations. Towards the end of the period an anticyclone appeared over the south-western parts of the Kingdom and the wind shifted to the North-Westward or Westward; in the north of Scotland (owing to a large and deep depression in the far north) the North-Westerly wind blew with the force of a strong gale.

* This value bas been altered owing to the receipt of further information.

† The corresponding value in last week's Report should read "−4."

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II. DATA from which the SUMMARY on page 307 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of each day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
0. SCOTLAND, N.	Sumburgh Head	45	33	43·3	37·9	40·7	+ 1·6	4	16	6	1·71	+0·81	*	*	*	*
	Stornoway	48	32	42·3	33·9	38·3	− 0·6	1	30	7	1·64	+0·39	3·3	− 2·7	7	− 5
	Wick	44	32	41·6	33·6	37·3	− 0·1	0	29	6	0·85	+0·25	*	*	*	*
	Lairg	45	29	40·5	31·9	36·3	+ 0·3	0	40	6	1·16	+0·33	*	*	*	*
	Glencarron												*	*	*	*
	Fort Augustus	47	33	42·3	34·1	38·6	+ 0·3	2	29	7	2·75	+1·71	2·3	?	5	?
	Fort William	50	35	45·7	33·7	41·4	+ 1·9	10	23	7	2·61	+0·46	2·3	?	5	?
1. SCOTLAND, E.	Nairn	46	2[illegible]	41·9	33·0	37·6	+ 0·1	0	31	7	0·91	+0·47	*	*	*	*
	Aberdeen	46	34	42·1	35·0	38·7	+ 0·8	0	26	5	0·35	−0·27	20·0	+ 9·8	43	+22
	Braemar	42	30	38·4	31·7	35·2	+ 0·6	0	48	6	1·45	+0·77	0·0†	? †	0†	?†
	Ochtertyre	48	28	43·1	31·3	37·4	+ 1·0	3	40	5	1·23	+0·20	*	*	*	*
	Leith	51	34	44·6	35·0	40·0	+ 0·7	7	28	4	0·63	+0·26	*	*	*	*
	Marchmont	47	28	42·4	32·0	37·4	+ 1·0	1	37	5	0·56	−0·12	17·0	?	35	?
2. ENGLAND, N.E.	Alnwick Castle	48	3[illegible]	42·9	34·3	38·8	+ 1·0	3	29	2	0·24	−0·37	*	*	*	*
	Durham	50	31	42·9	33·3	38·3	+ 1·3	3	32	5	0·08	−0·51	23·8	+14·1	48	+30
	Shields	50	32	44·7	34·1	39·6	+ 1·0	8	31	1	0·01	−0·49	*	*	*	*
	Scarborough	47	31	42·0	34·9	38·6	− 0·1	0	24	4	0·32	−0·22	*	*	*	*
	York	50	29	45·0	33·1	39·3	+ 1·7	8	35	5	0·28	−0·19	7·6	+ 2·1	15	+ 4
	Spurn Head	47	34	44·1	36·1	40·4	+ 1·8	6	22	4	0·20	−0·20	*	*	*	*
3. ENGLAND, E.	Hillington	53	32	45·7	35·0	40·6	+ 3·6	10	29	4	0·67	+0·17	17·1	+ 8·0	33	+16
	Yarmouth	50	31	45·3	36·0	40·8	+ 2·0	9	24	5	0·48	−0·04	*	*	*	*
	Geldeston	55	30	47·2	35·1	41·4	+ 3·2	15	30	7	0·60	+0·18	17·7	+ 6·5	33	+13
	Cambridge	55	31	48·9	34·6	42·0	+ 4·5	19	21	5	0·53	+0·14	18·2	+ 8·4	34	+16
	Rothamsted	54	31	48·4	36·8	42·8	+ 5·4	27	15	5	0·36	+0·09	19·2	?	36	?
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	52	30	45·9	34·7	40·5	+ 3·1	11	30	6	0·36	−0·13	*	*	*	*
	Loughborough	54	32	47·6	36·0	42·3	+ 4·5	25	14	5	0·84	+0·35	*	*	*	*
	Stamford (Ketton Hall)	55	30	47·9	34·3	41·4	+ 4·0	17	33	5	0·69	?	*	*	*	*
	Cheadle	52	31	45·3	34·4	40·1	+ 3·4	9	31	7	0·94	+0·29	*	*	*	*
	Churchstoke	53	30	47·3	35·3	41·5	+ 2·5	15	29	5	1·31	+0·63	16·3	+ 7·3	31	+14
	Hereford	55	32	47·6	36·9	42·5	+ 4·0	25	14	3	0·56	+0·02	*	*	*	*
	Cirencester	—	26	—	34·1	?	?	?	?	4	0·58	−0·10	8·0	− 1·2	15	− 2
	Oxford	54	31	48·1	38·3	43·4	+ 5·0	25	10	6	0·56	+0·07	22·1	+13·2	42	+26
5. ENGLAND, S.	London	55	39	49·3	38·4	44·1	+ 4·9	30	10	5	0·50	+0·01	9·6 †	+ 4·5†	18†	+10†
	Strathfield Turgiss	52	30	48·1	35·3	42·2	+ 4·2	27	17	4	0·48	−0·03	*	*	*	*
	Dungeness	51	28	48·1	40·7	44·6	+ 4·5	24	4	5	0·51	−0·11	*	*	*	*
	Hastings (St. Leonards)	52	30	46·1	38·3	42·4	+ 2·3	18	10	5	0·60	−0·05	17·8	+ 4·9	33	+11
	Southampton	54	31	49·1	39·1	44·3	+ 4·2	8	28	6	0·50	−0·21	17·4	+ 7·2	32	+14
	Hurst Castle	51	32	49·3	41·6	45·6	+ 4·3	27	1	5	0·60	−0·04	*	*	*	*
	Stowell	55	29	48·3	37·9	43·3	+ 4·8	26	11	6	0·73	?	*	*	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	49	33	45·5	37·1	41·5	+ 1·4	10	21	7	3·55	+1·47	*	*	*	*
	Glasgow	48	35	45·1	35·7	39·7	+ 1·3	4	24	5	1·68	+0·76	9·1	+ 5·1	19	+11
	Ardrossan	48	38	45·6	39·3	42·6	+ 2·4	16	8	6	1·09	+0·19	*	*	*	*
	Glenlee	49	32	44·7	36·7	40·9	+ 3·5	8	22	7	1·65	+0·07	*	*	*	*
	Douglas (Isle of Man)	50	37	46·5	39·4	43·1	+ 2·4	19	7	4	1·10	+0·07	18·2	+ 8·7	36	+18
7. ENGLAND, N.W.	Newton Reigny	49	32	43·2	34·9	39·2	+ 2·5	3	27	6	1·00	+0·20	10·1	+ 3·1	20	+ 5
	Stonyhurst	47	32	44·1	35·7	40·1	+ 2·1	6	25	6	2·05	+1·07	10·8	+ 4·4	21	+ 9
	Blackpool	48	33	45·9	37·5	41·9	+ 3·1	11	20	5	1·24	+0·54	6·8	+ 0·6	13	+ 1
	Manchester	50	35	45·8	37·3	41·7	+ 3·8	11	20	6	1·36	+0·58	*	*	*	*
	Liverpool Obsy. (Bidston)	52	36	46·6	38·7	42·8	+ 3·0	19	9	6	1·09	+0·55	*	*	*	*
	Llandudno	52	37	48·7	40·3	44·7	+ 3·1	26	5	5	1·08	+0·40	8·4	+ 1·9	16	+ 3
	Holyhead	51	39	47·9	40·9	44·5	+ 1·9	22	3	5	1·42	+0·61	*	*	*	*
8. ENGLAND, S.W.	Llandovery	53	29	46·6	34·4	40·7	+ 0·2	13	31	7	2·18	+0·88	*	*	*	*
	Pembroke	51	41	48·6	43·7	46·3	+ 3·1	30	0	7	0·63	−0·25	10·4	− 0·2	20	0
	Arlington (N. Devon)	51	32	46·9	37·3	42·3	+ 2·3	22	13	7	2·21	+1·05	*	*	*	*
	Cullompton	55	29	48·8	38·3	43·8	+ 3·9	29	10	6	1·01	+0·23	10·9	+ 2·9	20	+ 6
	Falmouth	53	39	49·4	43·4	46·5	+ 2·4	32	0	7	1·46	+0·25	16·6	+ 5·3	30	+10
	Plymouth	53	32	49·6	41·9	45·9	+ 3·8	28	0	6	1·21	+0·31	11·5	+ 0·7	21	+ 2
	Prawle Point	51	34	49·1	41·6	45·5	+ 3·2	26	1	6	1·44	+0·65	*	*	*	*
9. IRELAND, N.	Malin Head	49	34	44·4	37·4	41·0	+ 0·9	7	18	7	0·93	?	*	*	*	*
	Londonderry	54	33	46·7	36·2	41·7	+ 1·7	13	25	7	1·07	+0·17	*	*	*	*
	Mullaghmore	51	35	45·4	38·1	41·9	− 0·2	10	17	7	1·40	+0·40	*	*	*	*
	Belmullet	51	38	46·[illegible]	39·9	43·1	− 0·2	17	6	7	1·34	?	*	*	*	*
	Markree Castle	51	30	45·5	34·7	40·3	+ 0·9	10	29	7	1·47	+0·68	6·6	− 2·4	13	− 3
	Brookeborough	49	31	44·1	34·2	39·4	+ 1·3	6	31	7	1·12	+0·17	*	*	*	*
	Armagh	51	32	45·2	34·7	40·2	+ 1·6	9	30	6	0·65	+0·01	9·2	+ 0·2	18	+ 2
	Donaghadee	45	31	43·7	34·9	39·5	− 1·2	5	27	7	0·56	−0·09	*	*	*	*
	Edgeworthstown	51	31	45·9	33·9	40·1	+ 1·5	11	32	6	0·88	+0·18	*	*	*	*
10. IRELAND, S.	Dublin	53	35	47·6	38·0	43·0	+ 1·6	24	11	6	0·48	−0·04	18·6	+ 7·1	36	+15
	Parsonstown	54	32	48·3	35·3	42·1	+ 2·5	29	19	6	0·70	+0·01	9·8	− 0·6	19	− 1
	Kilkenny	56	28	46·7	34·3	40·8	+ 0·1	13	32	7	0·76	0·00	*	*	*	*
	Waterford	54	30	47·9	36·8	42·6	+ 0·2	26	15	4	0·85	−0·14	*	*	*	*
	Roche's Point	54	35	49·0	40·4	44·9	+ 1·1	27	4	6	1·05	−0·13	*	*	*	*
	Valencia	55	36	50·4	41·1	45·9	+ 0·8	31	3	7	1·10	−0·32	12·7	+ 1·2	24	+ 4
	Killarney	59	29	51·4	37·6	44·8	+ 2·4	38	12	6	1·39	?	*	*	*	*
	Foynes	55	35	47·7	38·7	43·4	+ 1·1	24	9	6	1·43	* ?	*	*	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	53	42	50·4	46·0	48·3	+ 2·1	44	0	5	0·54	−0·34	*	*	*	*
	Jersey	54	39	51·6	45·3	48·6	+ 5·6	46	0	6	0·68	−0·12	14·1	+ 0·2	25	+ 1

Stations marked 𝔐 are in connection with the Royal Meteorological Society, and those marked 𝔖 with the Scottish Meteorological Society.

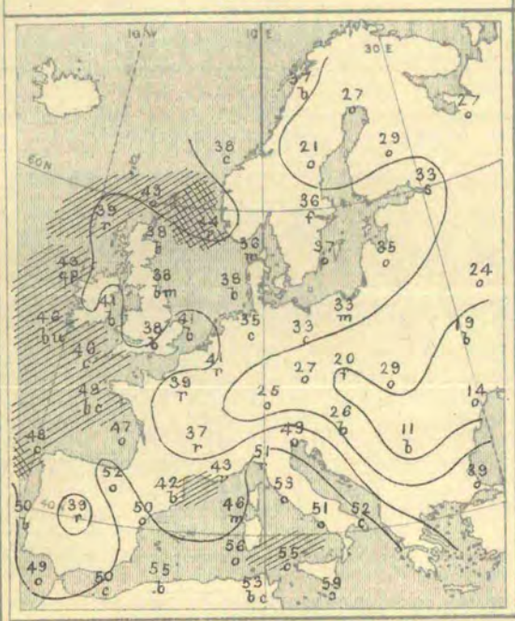
* An asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory and the Meteorological Office, Victoria Street. For additional Reports of Sunshine see last page.

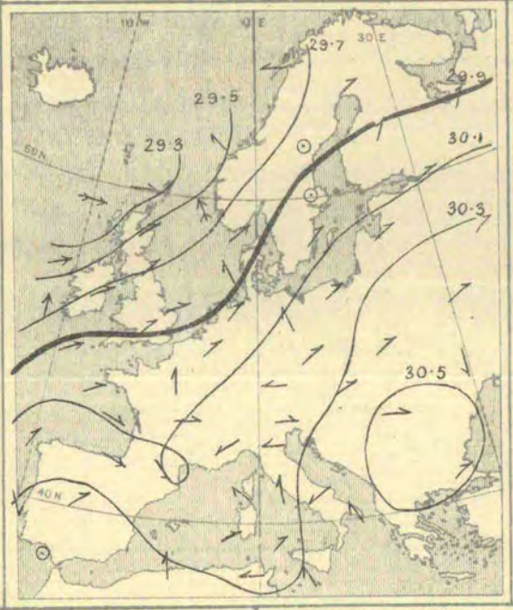
III.—SUMMARY OF WEATHER OVER EUROPE.

Sunday, 27th December.

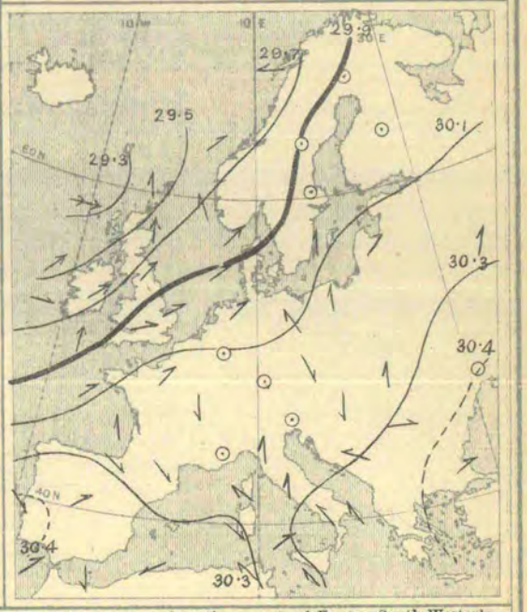
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather in morning fine and bright over Austria, Hungary, in Algeria, the west of France, and the greater part of the British Islands; dull elsewhere, and unsettled over the western and north-western countries; rain falling in many parts of France, the north-west of Ireland, the Shetlands, and south of Norway, snow at St. Petersburg. Rain at some part of ensuing 24 hours in all parts of France, England, and Ireland, thunder and lightning at several western and northern stations, but weather in London fine and bright till after midnight.

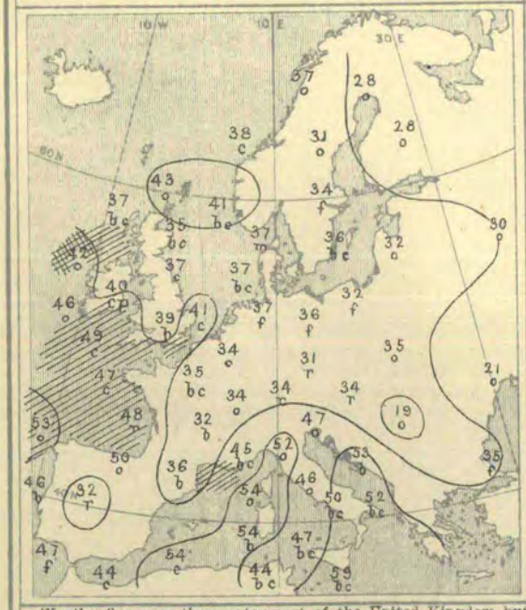
Temperature fallen a little over our Islands. Morning readings exceeding 50° over the Mediterranean only; exceeding 40° on the Atlantic coasts of France and the British Islands and over the Adriatic, lower elsewhere. Lowest of all, (1) 25° at Munich; (2) 11 at Hermanstadt and Nicolaieff, 14° at Odessa, 19° at Kiev, 23° at Warsaw, 24° at Moscow; (3) 21° at Hernösand, 27° at Haparanda and Archangel. Rising later to between 45° and 50° in many parts of our Islands and west of Norway, and to between 50° and 56° in Spain, Italy, and the west and south of France, and to 60° or more in Algeria and Sicily.

Wind light and variable over the south-western and southern parts of Europe, South-Westerly over Austria and southern Russia; mainly South-Westerly (South to West) over north-western and northern Europe, but of more brisk force, and blowing a moderate gale at some of our extreme western stations. Freshening from South-Westward over England later, but moderating in Ireland and veering Westwards; no important change taking place on Continent.

Barometer highest, (1) 30·5 ins. and more to 30·3 ins. over south-eastern Europe; (2) 30·3 ins. and more over Algeria and Spain, and exceeding 30·1 ins. in the south of France. Lowest, 29·3 ins. and less in an elongated depression lying to the northward and westward of Scotland. Gradients slight in south and east. Rising slightly over Scotland and Ireland later, but falling over England as a secondary disturbance approached our south-west coast. Anticyclone over south-eastern Europe moving away to the eastward.

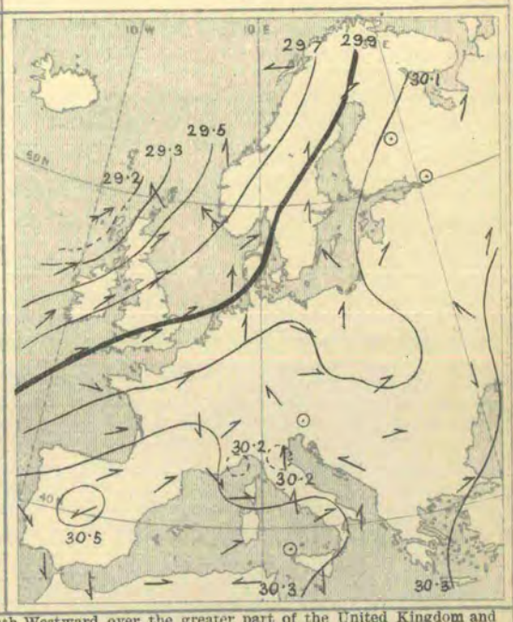
Monday, 28th December.

Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.

Barometer and Wind. 6 p.m.



Weather fine over the greater part of the United Kingdom, but showery on some parts of our north-west coasts; fine also at most of the French, Spanish, Italian, and Algerian stations. Dull over northern, central, and eastern Europe, with fog over north Germany, and with rain over south Germany and many parts of Austria. Dull rainy weather subsequently spreading from the westward over the whole of the United Kingdom: amount of rainfall large in the extreme north and north-west. Snow falling at some of the Russian and German stations.

Temperature highest, 59° at Malta, 54° at Algiers and Cagliari, and 53° at Corunna and Lesina; varying between 45° and 50° in the west of France and the extreme south-west of our Islands. Lowest, 21° at Odessa and Nicolaieff, 26° at Uleaborg, and 28° at Haparanda and Kuopio; below the freezing point over Russia and south Germany, and just touching that point at Donaghadee, Lyons, and Madrid. Frost taking place in early part of night in some eastern parts of Great Britain, but thermometer afterwards rising quickly. Exceeding 55° during day in most parts of southern Europe, and exceeding 60° in Algeria and the south of Italy, the highest reading of all being 68° at Palermo.

Wind moderate from the South-Westward over the greater part of the United Kingdom and France, but strong at some of the Channel stations; light to fresh from the South-Eastward in the west of Norway. Calm or light and variable over the greater part of Sweden, Russia, and central Europe, and Italy, but chiefly South-Easterly over the Baltic. Variable also in Spain; chiefly Southerly or South-Easterly in Algeria. Subsequently backing to the South-ward in all the more western and northern parts of our Islands, and increasing to a moderate gale in Ireland and to a strong gale in Scotland.

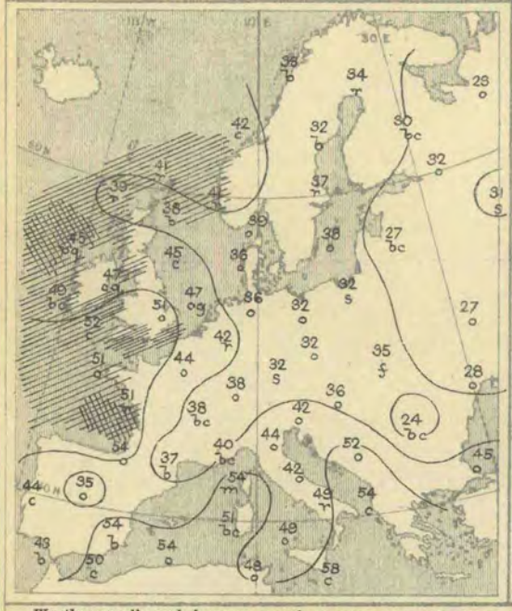
Barometer highest, 30·4 ins. to 30·5 ins. or rather more in an anticyclone lying over the Iberian Peninsula; 30·3 ins. and upwards over the southern parts of Russia. Lowest, 29·4 ins. and less in a shallow depression lying off the north of Scotland. New and much deeper disturbance advancing later to our extreme north-west coasts, and barometer falling quickly in Ireland and Scotland. No decided change taking place on Continent.

Judd & Co Lte Lith.

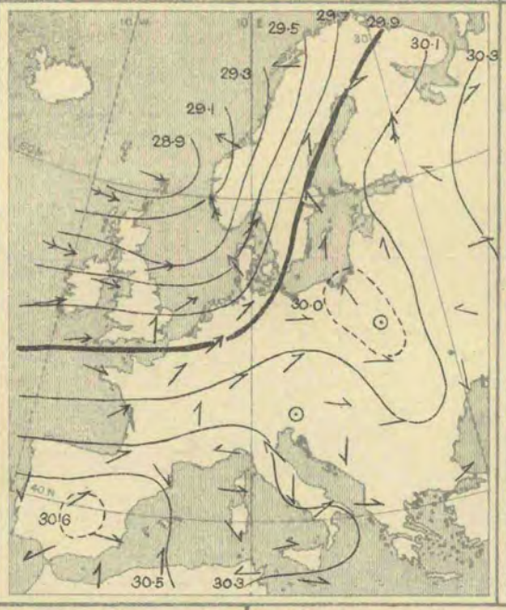
III.—SUMMARY OF WEATHER OVER EUROPE.

Tuesday, 29th December.

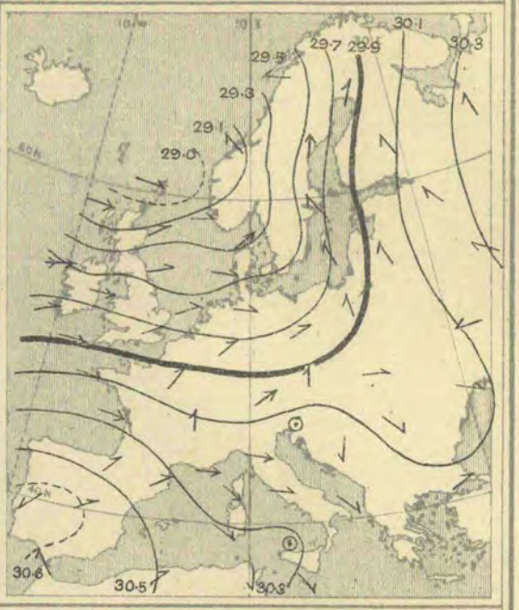
Temperature and Weather. 8 a.m.



Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather squally and showery over the greater part of the United Kingdom. Dull at most of the Continental stations, with rain in many places, fog over the Baltic, and snow at Neufahrwasser, Moscow, and Munich. Fine and bright over the southern parts of France and Spain. Hail showers falling later in the north of Ireland, and snow or sleet in the west and north of Scotland. Lightning seen at night at several of our more northern stations, accompanied by thunder at Stornoway.

Temperature highest, (1) 58° at Malta, 54° at Algiers and Brindisi, and 52° at Lesina; (2) 54° at Biarritz, and 52° at Sicily and Jersey; ranging between 45° and 50° in all the more southern parts of the United Kingdom, but below 40° in Scotland. Lowest, 23° at Archangel, 24° at Hermanstadt, 25° at Kharkov, 27° at Riga and Kiev, and 28° at Odessa, Swinemunde and Turin; as low as the freezing point in many parts of central Europe. Rising during day to between 50° and 53° over the southern parts of the United Kingdom, and to between 55° and 60° in many parts of southern Europe. Reaching 61° at Perpignan, and 64° at Cagliari and Algiers.

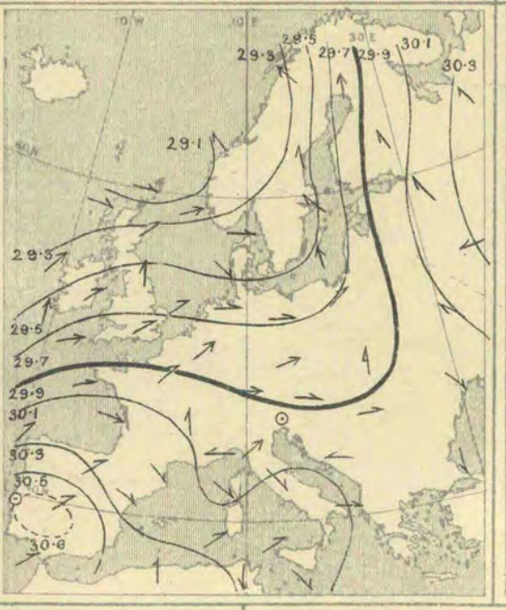
Wind fresh or strong from the South-Westward or Westward over the greater part of our Islands, with a gale in the extreme north-west, moderate from the South-Westward or Southward over France, Germany, and the Netherlands. Strong to a gale from the South-Eastward on the eastern shores of the North Sea, light or moderate from the same quarters over Sweden and the Baltic. Light and variable over the greater part of southern and eastern Europe, and also over Algeria and the Mediterranean. No important change occurring during day.

Barometer highest, 30·5 ins. to 30·6 ins. in an anticyclone lying over Spain and Algeria, 30·3 ins. and upwards over Russia. Lowest, 28·9 ins. and less, in a well-marked depression lying off the north of Scotland, 30·0 ins. and less in a very shallow system lying over Poland. Depression in north subsequently travelling away slowly in a north-easterly direction, and barometer rising in all parts of the United Kingdom, but rise slackening in west towards evening.

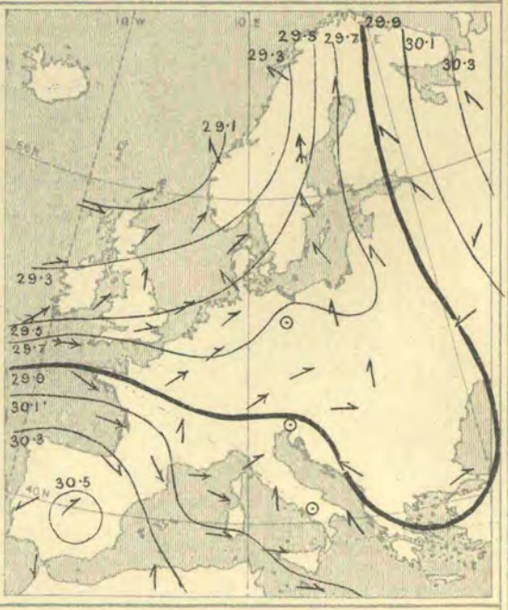
Wednesday, 30th December.

Temperature and Weather. 8 a.m.

Barometer and Wind. 8 a.m.



Barometer and Wind. 6 p.m.



Weather cloudy or overcast over the greater part of Europe, with rain in many places, and with snow at Wisby, Helsingfors, Kiev, Cracow, and Hermanstadt. Fine and bright in Algeria and the south of Italy; heavy rain falling during day in many parts of England, the Netherlands, and Germany, but sky clearing in the east of Scotland.

Temperature highest, 57° at Malta, 56° at Cagliari, 55° at Corunna and Sanguinaire, and 54° at Oporto; above 50° in the extreme south-west of our Islands and above 45° over the south of England. Lowest, (1) 18° at Kharkov, 22° at Archangel, 24° at Moscow, and 28° at Kiev; (2) 35° at Stornoway and Wick, and 37° at Nairn and Aberdeen. Rising during day to between 50° and 55° over all the more southern parts of the United Kingdom; exceeding 55° in the south of France and reaching 62° at Perpignan. Exceeding 60° over nearly the whole of Algeria and the south of Italy.

Wind South-Westerly over the greater part of our Islands, France, and Spain, and strong in force at the Channel stations. Moderate from the Westward in the north of Scotland, as well as over Denmark and Germany; Southerly or South-Easterly over Russia and Scandinavia; variable in Austria, Italy, and Algeria. Subsequently increasing to a fresh gale from the Westward on the south coasts of England and Ireland, and from the Southward in Finland and Sweden; no important change occurring elsewhere.

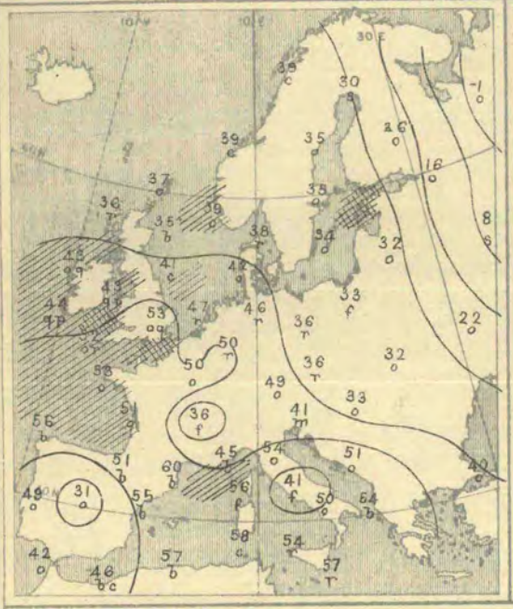
Barometer highest, 30·6 ins. and upwards in an anticyclone lying over Spain; 30·3 ins. and upwards in another system lying over Russia. Lowest, 29·1 ins. and less in a large but somewhat shallow depression lying to the northward of our Islands. Shallow secondary disturbances travelling eastwards across our Islands during day, and gradients becoming steep over the Channel and south of England.

Judd&Co Lith

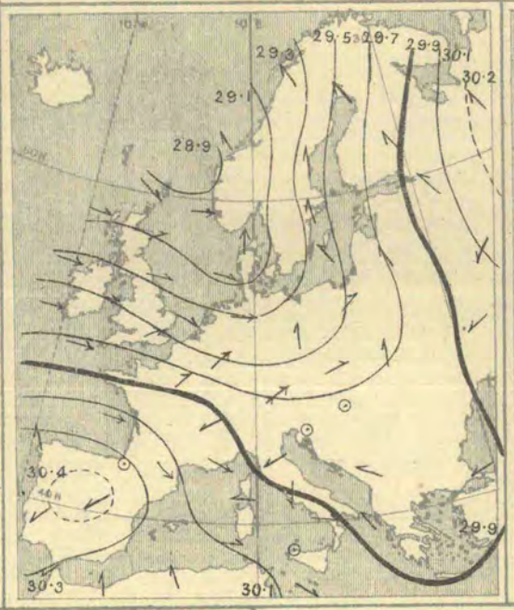
III.—SUMMARY OF WEATHER OVER EUROPE.

Thursday, 31st December.

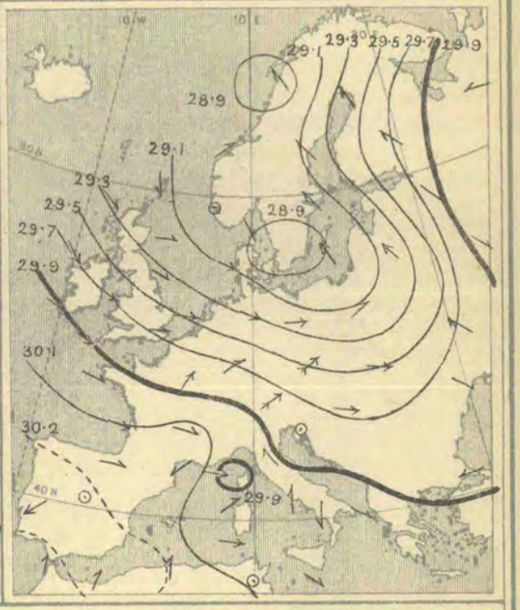
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather showery over the greater part of our Islands, with snow at Wick, but fine and bright in the east of Scotland. Dull over nearly the whole of the Continent, with rain over Denmark, Germany, and Belgium, as well as at Palermo and Malta, and with snow at Helsingfors and Moscow. Fine over Algeria, the south of France, and the north of Spain. Snow showers falling at many of the Scotch stations and hail in the north of Ireland.

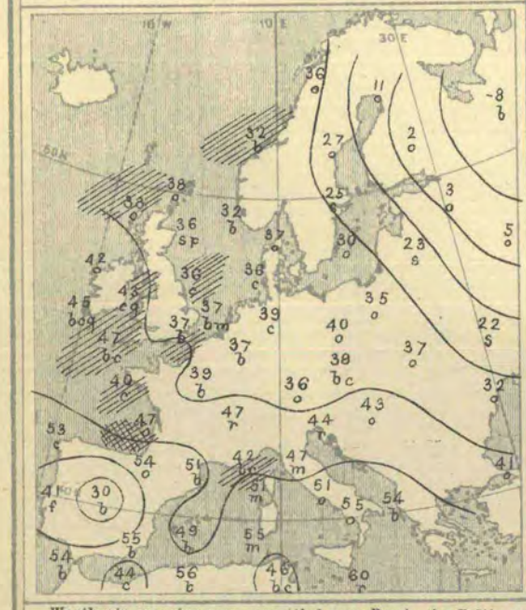
Temperature highest, 58° at Cagliari, 57° at Malta and Algiers, and 56° at Corunna and Sanguinaire; above 50° at most of the Mediterranean stations, as well as over the south of England and the west of France. Lowest, −1° at Archangel, +8° at Moscow, 16° at St. Petersburg, 18° at Kharkov, and 22° at Kiev; below the freezing point at nearly all the Russian stations and varying between 32° and 35° in the north-east of Scotland. Fall taking place over England during day, but thermometer rising above 60° in the south of France and reaching 68° at Perpignan. Exceeding 60° also at many of the Spanish, Italian, and Algerian stations, the highest reading being 68° at Algiers.

Wind Westerly over the greater part of our Islands and France; strong in force on western and southern coasts, with a gale over the eastern parts of the Channel. Strong to a gale from the South-Westward over Germany, moderate to strong from the Southward over Denmark, Scandinavia, Finland, and the Baltic. Light from the North-Eastward in Spain, and also in the south of Russia. Variable over Italy, Southerly or South-Easterly in Algeria. Subsequently veering to the North-Westward over the western and northern parts of the United Kingdom; gale in Channel subsiding quickly during day.

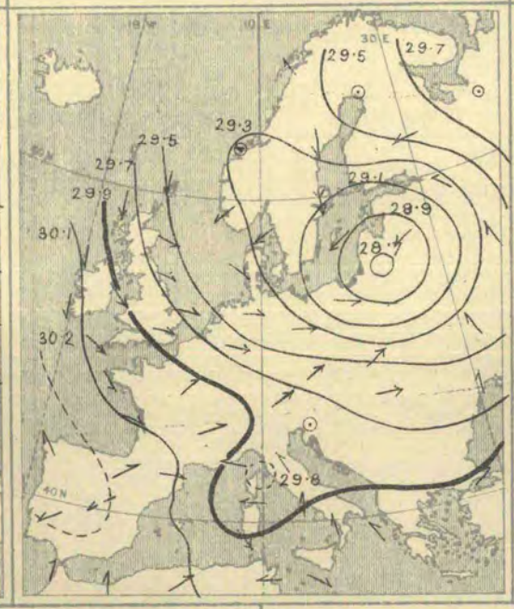
Barometer highest, 30·4 ins. and upwards in an anticyclone lying over central Spain; 30·2 ins. and upwards in another system over central and northern Russia. Lowest, 28·9 ins. and less in a depression lying to the north of the Shetlands; secondary disturbances shown over the North Sea and Denmark. Depression subsequently travelling in an east-south-easterly direction across the south of Scandinavia and barometer rising steadily in all parts of the United Kingdom.

Friday, 1st January.

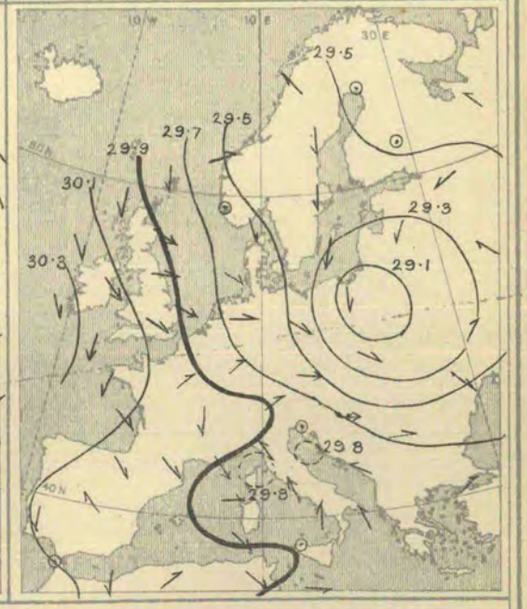
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning very unsettled over Russia, the Baltic, and north Germany, with snow in many places, rain at Swinemunde; dull over the north and west of our Islands, with showers in the far west, clear and bright over England, France, and Spain; unsettled over the northern parts of the Mediterranean, northern Italy, and Adriatic. Slight rain or snow later in Russia, Germany, Scotland, Scandinavia, and some parts of western Europe, and appearance of sky over south of England less fair in evening than during past two days.

Temperature risen somewhat in Scotland, fallen elsewhere. Morning readings above 50° at several Mediterranean stations, and above 40° on the Atlantic coasts of Ireland, England, and France; much lower over central, eastern, and northern Europe. Lowest, −8° Fahr. at Archangel, +2° to +5° over northern and central Russia, 12° at Haparanda, 14° at Kharkov, and 25° at Stockholm; 35° to 38° over the greater part of Scotland and England. Not touching 50° at the British and Irish stations later (except at Hurst Castle and Jersey), but ranging between 50° and 60° in the south of France at time of maximum, and greatly exceeding 60° in the south of Italy and over Algeria. Touching 70° at Tunis.

Wind fresh to strong from the North-Westward over our Islands and the Channel, strong Westerly over northern Germany and Austria, Easterly over Finland, North-Easterly to Northerly over Scandinavia. Very light and anticyclonic over Spain and the west and south of France. Veering Northwards over our Islands later and decreasing in force.

Barometer highest, 30·2 ins. and more to 30·6 ins. in a high-pressure area spreading eastwards from the Atlantic over western Europe, and exceeding 29·6 ins. over Finland and north of Russia. Lowest, about 28·7 ins. in a depression having its centre over the Baltic Provinces, but spreading all over the Baltic and central Europe; 29·8 ins. in another over Corsica. Rising over the United Kingdom later, and also over Russia, as the depression over latter region moved eastwards and began to fill up.

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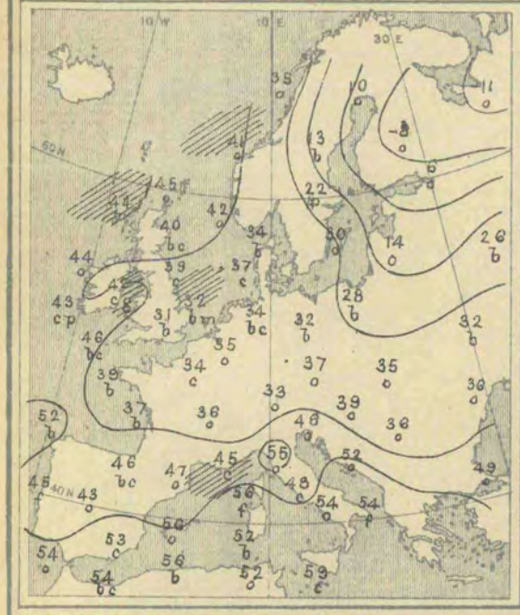
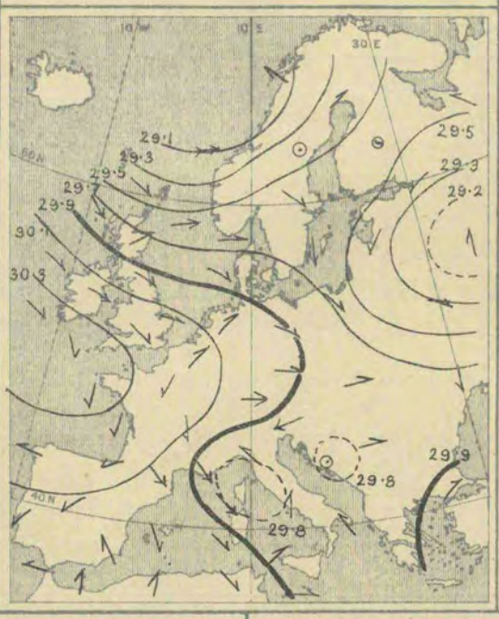
III.—SUMMARY OF WEATHER OVER EUROPE.

Saturday, 2nd January.

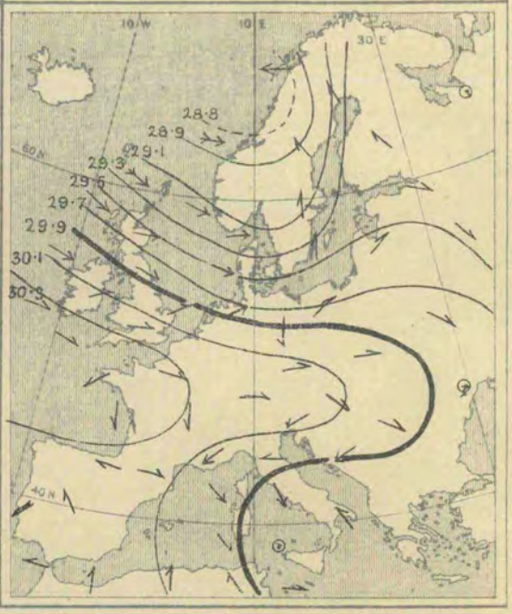
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



Weather in morning fine generally over the greater part of central and western Europe, including all but the northern parts of the British Islands; dull in the extreme north-west, with rain over the northern parts of Ireland and Scotland. Showers of rain, sleet, or snow falling at our western and most northern stations later, as well as in Norway and Sweden; rain over the Netherlands, some parts of Russia, in northern Italy, and Algeria.

Temperature risen in Scotland and Norway, fallen elsewhere. Morning readings exceeding 50° at many Mediterranean stations and at Corunna, and exceeding 40° on the western and northern coasts of the British Islands and in Norway—much lower elsewhere. Lowest of all, (1) −11° Fahr. at Archangel, −8° at Knopio, +1° at Helsingfors, 2° at Uleaborg, 13° at Hernösand, 14° at Riga, 26° at Moscow and Warsaw, 29° at Dungeness, 31° in London, 34° at Paris. Falling at the Scotch stations later, rising over England. Daily maxima exceeding 60° over the south of Italy and in Algeria, and approaching 70° in some localities.

Wind (1) light and anticyclonic over Spain, the Bay of Biscay, France, and the southern parts of our Islands; (2) strong North-Westerly in Scotland and West-South-Westerly over the southern half of Norway; (3) moderate North-Westerly over Germany and Westerly over the southern half of Russia; (4) circulating cyclonically (but of moderate strength) over Italy and the Mediterranean. Increasing to a stiff gale from North-West in Scotland later, and to a gale from West in Norway.

Barometer highest, 30·3 ins. and more to 30·1 ins. in an anticyclone spreading in from the Atlantic over western Europe. Lowest, 29·1 ins. and less in a deep depression approaching Scandinavia from the westward, 29·2 ins. and less in a large shallow system over central Russia, and below 2·.8 ins. in two others—one over Dalmatia, the other over Corsica and the Gulf of Genoa. Russian depression filling up later, those over Norway and the Mediterranean growing deeper.

GENERAL NOTES.

The weather experienced during this week has consisted of two distinct types. In the first of these pressure was highest over southern and south-eastern Europe, lowest in the extreme north-west, and as some depressions approached the northern parts of our Islands from the Atlantic South-Westerly winds spread over the United Kingdom and its neighbourhood, accompanied by mild weather and rain, and blew with the force of a gale at most stations. The low-pressure system then spread in the form of a hollow over Germany, central and south-eastern Europe, with the result that after Wednesday the depressions which appeared in the north travelled in a south-easterly direction across Scandinavia and the Baltic to Russia. The wind at once veered to the North-Westward over the United Kingdom, temperature decreased rapidly, and while dry bright weather prevailed over our southern and south-western districts, slight snow fell in the north-west and north, and unsettled conditions prevailed over central England.

At the close of the week disturbances of considerable magnitude and depth were appearing off the Norwegian coast and North-Westerly gales were setting in over the northern parts of the United Kingdom.

BRIGHT SUNSHINE Values for the Week in addition to those found on page 308.

Stations.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.	Stations.	No. of Hours recorded.	Difference from the Mean for the Week.	Percentage of possible Duration.	Difference from Mean for the Week.
EDINBURGH	16·2	?	34	?	TENBY	15·4*	?	29*	?
OSWALDKIRK (Yorkshire)	18·0	?	35	?	NEWQUAY	12·2	?	22	?
WORKSOP	17·1	+ 9·6	33	+19	TORQUAY	17·8*	?	32*	?
THURCASTON (Leicestershire)	20·5	+14·7	39	+28	ARLEY COTTAGE (County Cavan)	11·4	?	22	?
BRIGHTON	17·9	?	33	?	GUERNSEY	4·8*	?	8*	?
EASTBOURNE	18·2	?	34	?					

* The values at Tenby, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

REPORTS received too late for insertion in their proper places.

Date of Report.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each Day.	Of Lowest each Day.	For whole of each Day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-Degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Difference from Mean for the Week.	Percentage of possible duration.	Difference from the Mean for the Week.
		°	°	°	°	°	°	°	°		Inches.	Inches.				
Week Ending Dec. 12th.	Alnwick Castle	51	30	43·9	34·4	39·3	+0·9	5	29	—	—	—	—	—	—	—
„ „ „ 26th.	Cambridge	—	—	—	—	—	—	—	—	—	—	—	8·6	−0·4	16	−1
„ „ „ „	Blackpool	46	20	36·8	24·9	31·1	−7·6	0	76	0	—	−0·70	3·0	−3·0	6	−6
„ „ „ „	Brookeborough	49	25	42·0	30·3	36·4	−0·8	0	39	2	0·23	−0·71	—	—	—	—

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QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1891.

VOL. VIII. APPENDIX I.] *New Series.* FIRST QUARTER—JANUARY TO MARCH. [*Price 4d.*

TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE FIRST QUARTER OF THE TWENTY-SIX YEARS, 1866 TO 1891.

	YEARS.	Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.										Channel Islands.		Means for the British Islands generally.	
		0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the Graz-ing, &c. Districts.					
		Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.
RAINFALL (in Inches).	Means for 5 years, 1866–70	—	12·6	—	9·6	—	5·4	—	5·7	—	6·9	—	8·5	—	7·2	—	12·6	—	11·8	—	13·7	—	11·8	—	11·0	—	12·2	—	—	—	9·7
	Means for 5 years, 1871–75	—	9·1	—	7·8	—	4·9	—	4·4	—	6·6	—	7·1	—	6·2	—	11·1	—	10·4	—	13·7	—	9·5	—	10·5	—	11·0	—	—	—	8·6
	Means for 5 years, 1876–80	—	9·5	—	7·2	—	5·3	—	5·7	—	6·2	—	7·2	—	6·3	—	11·2	—	9·5	—	9·9	—	9·2	—	10·0	—	10·0	—	—	—	8·2
	1881	60	9·2	46	7·4	51	6·3	47	5·8	42	6·4	39	6·7	45	6·5	46	9·5	42	8·6	45	9·7	51	7·7	44	8·7	46	8·8	51	9·0	46	7·7
	1882	72	10·3	48	5·2	32	3·1	32	4·3	35	5·6	34	3·6	36	4·4	62	11·9	49	7·8	49	7·1	63	8·3	69	9·7	57	9·0	48	5·8	47	6·7
	1883	65	8·9	52	6·5	53	5·8	51	6·4	49	7·4	49	7·5	51	6·7	56	12·2	51	8·5	55	10·4	63	10·3	57	13·8	57	11·0	63	8·8	54	8·9
	1884	66	12·1	52	6·4	44	6·2	42	3·9	47	6·7	48	6·7	46	6·0	68	17·1	57	11·5	62	12·2	70	12·2	72	15·4	66	13·7	59	9·2	56	9·9
	1885	63	9·1	46	5·4	45	4·4	48	5·3	50	6·1	45	7·3	47	5·7	57	11·9	53	7·7	54	9·1	57	8·4	58	11·8	56	9·8	62	8·2	52	7·8
	Means for 5 years, 1881–85	65	9·9	49	6·2	45	5·2	44	5·1	45	6·4	43	6·4	45	5·9	58	12·5	50	8·8	53	9·7	61	9·4	58	11·9	56	10·5	57	8·2	51	8·2
	1886	70	9·5	55	5·9	56	6·3	54	4·9	49	6·5	48	6·3	53	6·0	57	11·2	54	9·0	57	10·8	58	10·0	55	11·2	56	10·4	68	8·9	55	8·2
	1887	60	12·1	43	5·3	38	3·8	33	3·8	35	4·1	34	4·1	36	4·2	47	9·7	38	5·9	38	5·5	47	7·3	40	7·6	41	7·2	42	4·3	39	5·7
	1888	62	10·2	55	6·9	49	5·6	50	5·1	43	4·6	46	5·8	49	5·6	41	8·6	51	5·0	48	7·1	47	7·2	41	7·6	46	7·1	61	7·3	48	6·4
	1889	72	13·8	52	4·8	46	4·8	47	3·9	43	5·6	47	5·1	47	4·8	48	10·6	51	6·0	48	9·1	66	8·6	55	8·6	56	8·6	58	6·7	52	6·7
	1890	67	15·2	54	8·1	48	5·3	52	5·6	46	5·1	46	5·6	49	5·9	60	13·6	56	8·4	53	8·9	62	8·7	58	12·7	58	10·5	54	8·3	54	8·2
	Means for 5 years, 1886–90	66	12·2	52	6·2	47	5·2	47	4·7	43	5·2	44	5·4	47	5·3	53	10·7	50	6·9	49	8·3	56	8·4	50	9·5	52	8·8	57	7·1	50	7·1
	1891	65	14·7	38	5·1	43	3·7	43	3·8	37	4·1	38	5·8	40	4·5	47	9·2	35	4·4	38	6·8	49	5·5	42	5·6	42	6·3	43	6·2	41	5·4
	Means for 26 years, 1866–91	—	10·8	—	7·3	—	5·1	—	5·1	—	6·2	—	6·9	—	6·1	—	11·5	—	9·3	—	10·9	—	9·5	—	10·4	—	10·3	—	—	—	8·2
MEAN TEMPERATURE (in Degrees Fahrenheit).	Means for 5 years, 1866–70	38°·8		39°·1		38°·9		39°·9		39°·9		40°·7		39°·7		40°·1		40°·5		43°·1		40°·6		42°·1		41°·3		° —		40°·5	
	Means for 5 years, 1871–75	40·2		40·0		39·7		39·9		40·5		41·2		40·3		40·8		41·6		44·0		41·6		43·7		42·3		—		41·3	
	Means for 5 years, 1876–80	38·6		38·2		39·2		39·4		39·8		40·6		39·4		39·9		40·2		43·2		40·8		43·6		41·5		—		40·5	
	1881	34·4		33·5		34·3		36·1		35·8		38·2		35·6		35·3		36·6		39·9		37·5		39·8		37·8		44·5		36·7	
	1882	41·8		42·9		42·8		42·1		42·6		43·5		42·8		43·7		43·5		44·9		44·8		46·0		44·6		44·7		43·7	
	1883	38·7		38·8		38·8		39·0		39·2		40·8		39·3		40·2		40·1		42·2		40·9		42·5		41·2		44·8		40·3	
	1884	40·7		41·2		41·9		42·4		42·6		43·8		42·4		42·4		42·4		44·5		42·7		44·8		43·4		46·5		42·9	
	1885	38·4		38·3		39·2		39·2		39·3		40·7		39·3		39·6		39·7		41·9		40·6		42·2		40·8		43·9		40·1	
	Means for 5 years, 1881–85	38·8		38·9		39·4		39·8		39·9		41·4		39·9		40·2		40·5		42·7		41·3		43·1		41·6		44·9		41·8	
	1886	36·5		36·1		36·2		35·6		36·0		37·2		36·2		37·2		36·9		38·4		38·6		40·0		38·2		42·0		37·2	
	1887	39·4		39·2		38·7		37·5		37·8		38·7		38·4		39·8		39·0		40·4		41·3		42·3		40·6		42·7		39·5	
	1888	36·2		36·3		37·3		36·5		36·8		37·4		36·9		38·1		37·7		38·5		39·4		40·5		38·8		41·6		37·9	
	1889	38·5		38·6		38·6		37·5		38·2		39·0		38·4		40·1		39·7		40·8		41·3		42·9		41·0		44·1		39·7	
	1890	40·0		39·8		40·7		40·1		40·4		41·6		40·5		41·3		41·2		42·7		42·0		43·5		42·1		45·7		41·3	
	Means for 5 years, 1886–90	38·1		38·0		38·3		37·4		37·8		38·8		38·1		39·3		38·9		40·2		40·5		41·8		40·1		43·2		39·1	
	1891	38·4		38·0		37·9		37·4		38·0		38·4		37·9		39·6		39·5		40·2		40·8		42·3		40·5		43·1		39·2	
	Means for 26 years, 1866–91	38·9		38·8		39·1		39·2		39·5		40·5		39·4		40·1		40·2		42·5		41·0		42·9		41·3		—		40·4	

TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE TWENTY-SIX YEARS, 1866 TO 1891.

		Wheat Districts.	Grazing, &c. Districts.	Generally.
Rainfall	Driest	Ins. 4·2 in 1880 and 1887	Ins. 6·3 in 1891	Ins. 5·4 in 1891
	Wettest	9·0 in 1872	14·9 in 1872	12·0 in 1872
Temperature	Coldest	35°·6 in 1881	37°·8 in 1881	36°·7 in 1881
	Warmest	42·8 in 1882	44·6 in 1882	43·7 in 1882

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TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE FIRST QUARTER, 1891.

YEAR AND MONTHS.	0. SCOTLAND, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												CHANNEL ISLANDS.		MEANS FOR THE BRITISH ISLANDS GENERALLY.	
			1. SCOTLAND, E.		2. ENGLAND, N.E.		3. ENGLAND, E.		4. MIDLAND COUNTIES.		5. ENGLAND, S.		MEANS FOR WHEAT PRODUCING DISTRICTS.		6. SCOTLAND, W.		7. ENGLAND, N.W.		8. ENGLAND, S.W.		9. IRELAND, N.		10. IRELAND, S.		MEANS FOR THE GRAZING, &C. DISTRICTS.					
	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.
1891.																														
RAINFALL.—NUMBERS OF DAYS WITH RAIN.																														
January	24	24	14	14	16	16	19	19	14	14	17	17	16	16	18	18	13	13	15	15	19	19	17	17	16	16	17	17	16	16
February	16	40	5	19	3	19	2	21	2	16	2	19	3	19	11	29	5	18	3	18	8	27	6	23	7	23	3	20	5	21
March	25	65	19	38	24	43	22	45	21	37	19	38	21	40	18	47	17	35	20	38	22	49	19	42	19	42	23	43	20	41
RAINFALL.—AMOUNTS IN INCHES.																														
January	4·93	4·93	1·32	1·32	0·88	0·88	1·80	1·80	1·88	1·88	2·54	2·54	1·68	1·68	3·95	3·95	1·97	1·97	3·32	3·32	1·86	1·86	2·37	2·37	2·69	2·69	2·28	2·28	2·19	2·19
February	5·07	10·00	0·57	1·89	0·09	0·97	0·06	1·86	0·05	1·93	0·06	2·60	0·17	1·85	0·95	4·90	0·27	2·24	0·11	3·43	0·38	2·24	0·36	2·73	0·41	3·10	0·06	2·34	0·29	2·48
March	4·66	14·66	3·17	5·06	2·72	3·69	1·91	3·77	2·21	4·14	3·17	5·77	2·64	4·49	4·25	9·15	2·17	4·41	3·37	6·80	3·28	5·52	2·86	5·59	3·19	6·29	3·85	6·19	2·92	5·40
ACCUMULATED HEAT.—DAY DEGREES ABOVE 42° F.																														
January	17	17	12	12	22	22	25	25	28	28	22	22	22	22	25	25	22	22	31	31	34	34	51	51	33	33	53	53	28	28
February	101	118	103	115	62	84	50	75	77	105	58	80	70	92	92	117	95	117	95	126	117	151	141	192	108	141	115	168	89	117
March	14	132	25	140	43	127	79	154	73	178	75	155	59	151	44	161	50	167	72	198	65	216	110	302	68	209	103	271	64	181
ACCUMULATED HEAT.—DAY DEGREES BELOW 42° F.																														
January	161	161	192	192	203	203	266	266	235	235	220	220	223	223	128	128	162	162	163	163	131	131	119	119	141	141	83	83	182	182
February	67	228	112	304	128	331	173	439	158	393	149	369	144	367	68	196	82	244	91	254	56	187	38	157	167	208	33	116	106	288
March	232	460	215	519	169	500	162	601	173	566	146	515	173	540	171	367	145	389	133	387	143	330	107	264	140	348	45	161	157	445
BRIGHT SUNSHINE.—NUMBERS OF HOURS.																														
January	25	25	43	43	44	44	69	69	68	68	70	70	59	59	52	52	56	56	75	75	63	63	77	77	65	65	97	97	62	62
February	54	79	90	133	88	132	102	171	102	170	108	178	98	157	59	111	97	153	126	201	73	136	80	157	87	152	167	264	93	155
March	126	205	121	254	123	255	121	292	101	271	103	281	114	271	139	250	111	264	119	320	135	271	143	300	129	281	144	408	122	277
BRIGHT SUNSHINE.—PERCENTAGES OF POSSIBLE DURATION.																														
January	12	14	20	19	20	17	30	29	29	29	30	32	26	25	24	26	25	25	31	37	28	29	34	35	28	30	40	43	27	28
February	21	15	34	24	32	24	37	30	37	30	38	30	36	28	22	22	35	25	46	34	27	27	29	31	32	28	59	42	34	28
March	31	22	30	30	29	28	29	32	24	31	24	31	27	30	33	26	26	30	29	35	33	30	35	33	31	31	34	44	29	31

EXPLANATION OF TABLES.

TABLES I. and IA. are published in continuation of those given in the Quarterly Summaries of the Weekly Weather Reports, 1884-90. The whole of the values for 1878-91 have been corrected by information received since they were first published.

TABLE II. In this Table the monthly values for *January* are those for the first four weeks in the year; those for *February* are for the fifth to the eighth weeks; those for *March* are for the ninth to the thirteenth weeks.

The figures given in the columns headed "From Jan. 4" are the values for the whole period elapsed since the beginning of the first week of this year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for the "Grazing, &c. Districts" the values for the "Channel Islands," are not included.

The Means for the British Islands generally are those for the Wheat Districts and Grazing Districts combined.

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QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1891.

VOL. VIII. APPENDIX I. *New Series.* SECOND QUARTER—APRIL TO JUNE. [*Price 4d.*

TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE SECOND QUARTER OF THE TWENTY-SIX YEARS, 1866 TO 1891.

	YEARS.	Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.										Channel Islands.		Means for the British Islands generally.	
		0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the Grazing, &c. Districts.					
		Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.
RAINFALL (in Inches).	Means for 5 years, 1866-70	—	8·8	—	5·7	—	5·5	—	4·5	—	5·3	—	5·1	—	5·2	—	7·1	—	6·5	—	7·0	—	7·5	—	7·2	—	7·1	—	—	—	6·2
	Means for 5 years, 1871-75	—	8·5	—	6·5	—	5·5	—	5·5	—	6·4	—	6·4	—	6·1	—	7·3	—	7·4	—	7·9	—	7·5	—	6·2	—	7·3	—	—	—	6·7
	Means for 5 years, 1876-80	—	6·3	—	6·9	—	7·1	—	7·2	—	7·7	—	7·1	—	7·2	—	8·5	—	7·8	—	9·0	—	8·3	—	9·8	—	8·7	—	—	—	8·0
	1881	49	7·0	45	5·6	41	4·5	35	4·3	37	4·3	33	4·2	38	4·6	49	9·3	44	8·6	42	6·1	55	8·5	48	8·3	47	8·2	41	4·6	43	6·4
	1882	51	7·4	51	7·4	47	9·2	48	8·0	49	9·9	47	7·9	48	8·5	51	10·5	51	10·6	55	10·2	60	9·4	56	10·3	55	10·2	49	6·6	52	9·3
	1883	48	5·7	40	3·8	39	6·0	36	6·7	39	7·2	36	5·1	38	5·8	45	7·8	38	5·9	42	6·1	52	6·2	44	7·6	44	6·7	42	5·9	41	6·2
	1884	48	6·4	39	3·6	39	3·2	33	3·8	32	4·2	31	4·7	35	3·9	40	5·4	32	3·8	32	4·9	42	5·8	38	4·6	37	4·9	42	4·9	37	4·4
	1885	61	6·8	46	5·5	48	6·1	43	6·5	48	6·8	43	6·0	46	6·2	48	7·3	45	6·0	50	8·7	50	6·1	46	7·8	48	7·2	50	6·0	47	6·7
	Means for 5 years, 1881-85	51	6·7	44	5·2	43	5·8	39	5·9	41	6·5	38	5·6	41	5·8	47	8·1	42	7·0	44	7·2	52	7·2	46	7·7	46	7·4	45	5·6	44	6·6
	1886	59	6·7	46	6·4	46	6·1	43	5·2	50	9·4	45	6·4	46	6·7	48	8·8	49	9·4	46	7·3	50	7·9	50	8·2	49	8·3	50	6·2	48	7·5
	1887	45	6·2	32	3·7	33	3·0	35	3·6	31	4·0	31	3·8	32	3·6	34	5·8	27	3·8	29	3·5	29	4·5	26	3·3	29	4·2	35	3·8	31	3·9
	1888	56	8·5	44	7·1	43	5·1	43	5·1	41	6·0	42	6·2	43	5·9	49	11·4	43	6·4	46	7·5	50	9·8	49	10·1	47	9·0	50	6·6	45	7·5
	1889	50	4·9	42	5·8	39	5·0	43	7·3	41	8·1	41	5·7	41	6·4	44	7·7	40	6·8	40	5·9	45	7·2	46	7·6	43	7·0	39	5·3	42	6·7
	1890	58	8·5	52	5·6	41	4·7	41	4·5	40	4·7	42	6·3	43	5·2	50	10·1	45	6·0	51	8·1	54	6·3	58	8·5	52	7·8	55	7·7	48	6·5
	Means for 5 years, 1886-90	54	7·0	43	5·7	40	4·8	41	5·1	41	6·4	40	5·7	41	5·5	45	8·8	41	6·5	42	6·5	46	7·1	46	7·5	44	7·3	46	5·9	43	6·4
	1891	45	6·3	36	4·4	35	4·3	41	5·5	43	6·7	38	4·8	39	5·1	36	5·0	39	5·9	42	7·2	46	6·1	45	8·4	42	6·5	41	6·2	41	5·8
	Means for 26 years, 1866-91	—	7·4	—	5·9	—	5·7	—	5·6	—	6·5	—	5·9	—	5·9	—	7·8	—	7·0	—	7·5	—	7·5	—	7·7	—	7·5	—	—	—	6·7
MEAN TEMPERATURE (in Degrees Fahrenheit).	Means for 5 years, 1866-70	48°5		50°4		49°8		52°7		53°1		53°1		51°8		51°3		51°8		53°9		52°5		53°0		52°5		°		52°2	
	Means for 5 years, 1871-75	48·2		49·8		49·6		51·0		52·0		52·1		50·9		51·1		51·3		53·0		51·6		53·3		52·1		—		51·5	
	Means for 5 years, 1876-80	47·2		48·9		49·4		51·1		51·3		51·9		50·5		50·2		50·5		52·0		50·1		52·0		51·0		—		50·8	
	1881	46·8		50·1		50·6		52·6		52·9		53·5		51·9		50·8		51·8		52·5		51·8		52·8		51·9		53·4		51·9	
	1882	47·5		49·4		50·4		52·4		52·2		53·8		51·6		50·7		51·8		53·4		51·2		52·2		51·7		53·9		51·7	
	1883	47·3		50·1		50·2		53·1		52·2		52·9		51·5		50·0		51·0		51·7		50·5		51·5		50·9		52·6		51·2	
	1884	46·8		49·4		50·0		51·2		51·4		52·4		50·9		50·1		50·6		51·5		50·6		51·8		50·9		52·6		50·9	
	1885	45·8		48·6		49·0		50·5		50·2		51·8		50·0		48·3		49·0		50·0		48·7		49·6		49·1		51·1		49·6	
	Means for 5 years, 1881-85	46·8		49·5		50·0		51·8		51·8		52·9		51·2		50·0		50·8		51·6		50·6		51·6		50·9		52·7		51·1	
	1886	45·6		47·8		47·9		50·5		50·5		52·0		49·7		48·1		49·4		51·2		48·9		50·8		49·7		52·1		49·7	
	1887	48·4		50·5		50·3		51·4		52·0		52·4		51·3		51·0		51·2		52·6		52·2		53·3		52·1		53·2		51·7	
	1888	46·5		47·6		48·4		50·5		50·5		51·1		49·6		49·4		49·9		50·8		50·0		51·8		50·4		51·9		50·0	
	1889	49·7		50·9		51·3		53·1		53·4		54·7		52·7		51·9		52·6		53·0		51·7		52·4		52·3		54·0		52·5	
	1890	48·0		49·2		49·8		51·4		51·2		52·6		50·8		50·2		51·0		52·0		50·9		52·1		51·2		52·9		51·0	
	Means for 5 years, 1886-90	47·6		49·2		49·5		51·4		51·5		52·6		50·8		50·1		50·8		51·9		50·7		52·1		51·1		52·8		51·0	
	1891	47·5		48·2		48·8		50·7		50·8		52·3		50·2		50·1		50·5		51·5		50·5		51·7		50·9		53·0		50·6	
	Means for 26 years, 1866-91	47·7		49·5		49·6		51·6		51·9		52·5		51·0		50·5		51·0		52·5		51·1		52·4		51·5		—		51·3	

TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE TWENTY-SIX YEARS, 1866 TO 1891.

		Wheat Districts.	Grazing, &c. Districts.	Generally.
Rainfall	Driest	Ins. 3·1 in 1870	Ins. 4·2 in 1887	Ins. 3·9 in 1887
	Wettest	9·4 in 1879	10·3 in 1872 and 1878 10·2 in 1879 and 1882	9·8 in 1879
Temperature	Coldest	° 48·4 in 1879	° 49·1 in 1879 and 1885	° 48·8 in 1879
	Warmest	54·0 in 1868	53·6 in 1868	53·8 in 1868

TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE SECOND QUARTER, 1891.

YEAR AND MONTHS.	0. Scotland, N.		Principal Wheat-producing Districts. 1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat producing Districts.		Principal Grazing, &c. Districts. 6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the &c. Grazing, Districts.		Channel Islands.		Means for the British Islands generally.	
	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.
1891.																														
Rainfall.—Numbers of Days with Rain.																														
April	13	78	9	47	13	56	12	55	11	48	9	47	11	51	9	56	10	45	9	47	11	60	11	53	10	52	10	53	11	52
May	19	97	15	62	13	69	16	71	19	66	15	62	15	66	14	70	14	59	15	62	17	77	17	70	15	67	15	68	15	67
June	13	110	12	74	9	78	13	84	14	80	14	76	12	78	13	83	15	74	18	80	18	95	17	87	16	83	16	84	14	81
Rainfall.—Amounts in Inches.																														
April	1·39	16·05	1·28	6·34	1·27	4·96	0·96	4·73	1·24	5·38	0·58	6·35	1·07	5·56	1·36	10·51	1·17	5·58	1·19	7·99	1·44	6·96	1·33	6·92	1·39	7·59	0·70	6·89	1·19	6·59
May	2·28	18·33	1·73	8·07	1·95	6·91	2·58	7·31	2·62	8·00	2·39	8·74	2·25	7·81	1·69	12·20	1·67	7·25	2·61	10·59	2·30	9·26	2·92	9·84	2·24	9·83	2·56	9·45	2·25	8·84
June	2·64	20·97	1·38	9·45	1·06	7·97	1·97	9·28	2·86	10·86	1·82	10·56	1·82	9·63	1·95	14·15	3·63	10·28	3·43	14·02	2·37	11·63	4·14	13·98	2·98	12·81	2·93	12·38	2·40	11·24
Accumulated Heat.—Day Degrees above 42° F.																														
April	75	207	88	228	74	201	126	280	130	308	149	304	113	264	115	276	105	272	141	339	126	342	155	457	128	337	163	434	121	302
May	152	359	169	397	152	353	199	479	213	521	237	541	194	458	185	461	130	461	218	557	174	516	207	664	195	532	238	672	195	497
June	399	758	437	834	455	808	544	1023	542	1063	537	1128	513	971	520	981	526	987	530	1096	523	1044	550	1214	533	1065	576	1248	523	1020
Accumulated Heat.—Day Degrees below 42° F.																														
April	118	578	107	626	68	568	66	667	75	641	42	557	72	612	75	442	49	436	32	419	46	377	32	296	47	395	1	162	62	505
May	39	617	40	666	25	593	22	689	27	668	8	565	24	636	21	463	13	449	15	434	13	390	13	309	15	410	0	162	20	525
June	4	621	4	670	0	593	0	689	0	668	0	565	1	637	0	463	0	449	0	434	0	390	0	309	0	410	0	162	0	525
Bright Sunshine.—Numbers of Hours.																														
April	146	350	140	394	105	360	103	395	103	374	124	405	115	386	144	394	105	369	148	468	128	397	145	445	134	415	189	597	125	402
May	163	513	161	555	143	503	155	550	146	520	172	577	155	541	168	562	141	510	184	652	160	559	160	614	164	579	206	803	160	562
June	226	739	207	762	216	719	215	765	210	730	264	841	222	763	223	985	230	740	227	879	214	773	220	834	223	802	291	1097	223	785
Bright Sunshine.—Percentages of possible Duration.																														
April	36	26	35	30	27	28	26	30	27	29	32	30	29	29	37	29	26	29	38	35	32	30	37	34	34	31	49	45	32	30
May	36	29	35	32	32	29	36	32	34	30	40	33	35	31	38	32	32	29	43	37	37	32	39	35	38	33	49	46	37	32
June	37	32	34	32	37	30	37	32	36	31	47	35	38	32	38	33	39	31	40	38	37	32	38	35	38	34	53	47	38	33

EXPLANATION OF TABLES.

TABLES I. and Ia. are merely in continuation of the Tables given in the Quarterly Summaries of the Weekly Weather Reports, 1884-90. The whole of the values for 1878-91, however, have been corrected by information received since they were first published.

TABLE II. In this Table the monthly values for *April* are those for the fourteenth to seventeenth weeks in the year; those for *May* are for the eighteenth to the twenty-first weeks; those for *June* are for the twenty-second to the twenty-sixth weeks of the year.

The figures given in the columns headed "From Jan. 4" are the values for the whole period elapsed since the beginning of the first week of the year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for the "Grazing, &c. Districts" the values for the "Channel Islands," are not included.

The Means for the British Islands generally are those for the Wheat Districts and Grazing Districts combined.

(OFFICIAL COPY.)

QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1891.

VOL. VIII. APPENDIX I.] *New Series.*

THIRD QUARTER—JULY TO SEPTEMBER.

[*Price 4d.*

TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE THIRD QUARTER OF THE TWENTY-SIX YEARS, 1866 TO 1891.

	YEARS.	**Principal Wheat-producing Districts.**												**Principal Grazing, &c. Districts.**										**Channel Islands.**		**Means for the British Islands generally.**	
		0. Scotland, N.		**1.** Scotland, E.		**2.** England, N.E.		**3.** England, E.		**4.** Midland Counties.		**5.** England, S.		Means for Wheat-producing Districts.		**6.** Scotland, W.		**7.** England, N.W.		**8.** England, S.W.		**9.** Ireland, N.		**10.** Ireland, S.		Means for the Grazing, &c. Districts.					
		Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.
RAINFALL (in Inches).	Means for 5 years, 1866–70	—	10·6	—	8·8	—	6·3	—	6·1	—	7·4	—	7·3	—	7·2	—	10·9	—	9·9	—	10·1	—	9·8	—	8·6	—	9·8	—	—	—	8·6
	Means for 5 years, 1871–75	—	13·1	—	10·7	—	8·4	—	7·5	—	9·1	—	8·0	—	8·7	—	13·2	—	12·9	—	14·1	—	12·2	—	10·8	—	12·6	—	—	—	10·7
	Means for 5 years, 1876–80	—	9·0	—	8·9	—	9·2	—	9·0	—	10·1	—	8·7	—	9·2	—	11·7	—	12·3	—	11·6	—	11·1	—	10·7	—	11·5	—	—	—	10·4
	1881	49	6·5	50	9·1	51	10·3	51	8·5	47	8·3	47	8·2	49	8·9	55	10·4	50	11·0	49	9·4	63	8·6	55	10·3	54	9·9	51	7·8	52	9·4
	1882	60	8·2	57	8·0	56	6·9	48	7·0	55	8·1	49	7·2	53	7·4	57	12·3	55	11·5	57	13·2	65	11·5	59	11·1	59	11·9	59	8·1	56	9·7
	1883	59	8·5	57	10·1	51	8·3	52	8·1	50	8·9	49	6·7	52	8·4	54	12·2	51	9·3	58	10·1	61	11·4	57	12·8	56	11·3	62	9·5	54	9·9
	1884	53	7·8	48	6·3	35	5·3	38	7·4	40	6·2	44	5·9	41	6·2	55	12·3	48	9·0	52	8·6	59	10·2	48	7·1	52	9·4	52	7·1	47	7·8
	1885	59	8·1	45	6·0	36	5·7	36	6·2	35	5·9	33	5·1	37	5·8	46	11·6	43	7·8	42	8·8	51	9·9	46	9·9	46	9·6	45	5·7	42	7·7
	Means for 5 years, 1881–85	56	7·8	51	7·9	46	7·3	45	7·4	45	7·5	44	6·6	46	7·3	53	11·8	49	9·8	52	10·0	60	10·3	53	10·2	53	10·4	54	7·6	50	8·9
	1886	59	8·7	43	5·0	41	6·8	38	6·5	39	6·4	35	5·8	39	6·1	48	11·4	42	10·3	40	9·3	54	9·3	53	10·9	47	10·2	48	7·2	43	8·2
	1887	63	10·3	53	7·6	44	6·1	42	5·4	35	5·2	35	5·8	42	6·0	49	10·8	43	7·1	37	7·3	55	10·5	46	7·9	46	8·7	40	6·2	44	7·4
	1888	55	9·3	52	7·1	49	9·2	53	8·4	48	7·9	46	7·9	50	8·1	53	10·6	50	10·5	53	11·0	54	10·3	44	9·3	51	10·3	51	8·6	51	9·2
	1889	58	11·0	51	8·8	48	7·7	48	9·1	44	7·8	41	6·6	46	8·0	51	10·8	48	10·2	50	9·1	60	11·9	50	9·8	52	10·4	47	6·0	49	9·2
	1890	65	12·1	54	8·4	48	8·3	44	7·2	47	6·6	44	8·6	47	7·8	54	12·0	53	9·2	52	9·8	65	10·2	55	8·4	56	9·9	44	8·1	52	8·9
	Means for 5 years, 1886–90	60	10·3	51	7·4	46	7·6	45	7·3	43	6·8	40	6·9	45	7·2	51	11·1	47	9·5	46	9·3	58	10·4	50	9·3	50	9·9	46	7·2	48	8·6
	1891	71	15·9	59	11·7	51	8·8	51	8·5	52	7·9	52	9·0	53	9·2	62	14·9	55	13·8	56	12·9	66	11·3	56	11·0	59	12·8	51	9·7	56	11·0
	Means for 26 years, 1866–91	60	10·4	51	8·8	46	7·8	45	7·5	43	8·2	40	7·6	—	8·0	—	11·8	—	11·0	—	11·0	—	10·8	—	9·9	—	10·9	—	—	—	9·5
MEAN TEMPERATURE (in Degrees Fahrenheit).	Means for 5 years, 1866–70		54°4		57°1		57°0		59°7		59°7		60°1		58°7		57°9		59°0		61°0		58°5		59°5		59°2		—		59°0
	Means for 5 years, 1871–75		54·5		56·7		57·5		59·7		59·6		60·0		58·7		57·7		58·5		60·4		57·2		58·8		58·5		—		58·6
	Means for 5 years, 1876–80		54·1		56·4		57·6		59·6		59·3		60·3		58·6		57·2		58·1		59·9		56·8		59·0		58·2		—		58·4
	1881		52·1		56·8		56·8		58·6		57·7		59·4		57·9		54·8		56·4		57·5		55·8		56·4		56·2		59·8		57·1
	1882		54·2		56·6		57·7		58·2		57·1		58·8		57·7		56·0		56·8		57·4		55·9		56·2		56·5		58·9		57·1
	1883		52·9		55·8		56·9		58·5		57·7		59·5		57·7		55·9		57·2		57·5		55·8		56·9		56·7		59·1		57·2
	1884		54·5		57·5		59·1		61·8		60·7		62·4		60·3		58·2		59·6		60·5		57·9		59·0		59·0		61·7		59·7
	1885		51·7		55·0		56·2		58·0		57·7		59·6		57·3		54·8		56·2		57·7		55·7		57·3		56·3		59·6		56·8
	Means for 5 years, 1881–85		53·1		56·3		57·3		59·0		58·2		59·9		58·1		55·9		57·2		58·1		56·2		57·2		56·9		59·8		57·6
	1886		52·4		56·1		58·1		60·2		59·7		61·3		59·1		55·8		57·7		59·4		56·5		58·2		57·5		61·0		58·3
	1887		52·9		55·8		57·1		59·1		58·2		59·7		58·0		55·6		57·5		58·7		56·5		58·4		57·3		61·2		57·7
	1888		51·7		53·2		54·4		57·1		55·8		58·0		55·7		54·2		55·4		56·7		55·0		56·2		55·5		58·9		55·6
	1889		53·2		54·7		56·4		58·1		57·5		59·4		57·2		55·5		56·9		58·0		56·1		57·5		56·8		60·3		57·0
	1890		53·8		55·7		57·7		58·8		58·1		59·8		58·0		56·1		57·5		58·1		56·5		57·6		57·2		59·2		57·6
	Means for 5 years, 1886–90		52·8		55·1		56·7		58·7		57·9		59·6		57·6		55·4		57·0		58·2		56·1		57·6		56·9		60·1		57·3
	1891		54·0		55·7		57·0		58·4		57·5		59·2		57·6		56·1		57·4		57·4		56·6		57·3		57·0		59·8		57·3
	Means for 26 years, 1866–91		53·8		56·3		57·2		59·3		58·9		60·0		58·3		56·8		57·9		59·4		57·0		58·4		57·9		—		58·1

TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE TWENTY-SIX YEARS, 1866 TO 1891.

		Wheat Districts.	Grazing, &c. Districts.	Generally.
Rainfall	Driest	Ins. 4·9 in 1870	Ins. 6·4 in 1870	Ins. 5·7 in 1870
	Wettest	10·6 in 1879	14·2 in 1872	12·4 in 1879
Temperature	Coldest	55°7 in 1888	55°5 in 1888	55°6 in 1888
	Warmest	60°9 in 1868	60°8 in 1868	60°9 in 1868

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TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE THIRD QUARTER, 1891.

YEAR AND MONTHS.	Principal Wheat-producing Districts.														Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
	0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the &c. Grazing, Districts.					
	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.
1891.																														
Rainfall.—Numbers of Days with Rain.																														
July - -	20	130	16	90	12	90	17	101	15	95	13	89	15	93	13	96	15	89	14	94	16	111	13	100	14	97	12	96	15	96
August -	22	152	20	110	21	111	19	120	20	115	20	109	20	113	21	117	19	108	21	115	23	134	22	122	21	118	20	116	21	117
September -	29	181	23	133	18	129	15	135	17	132	19	128	18	131	28	145	21	129	21	136	27	161	21	143	24	142	19	135	21	138
Rainfall.—Amounts in Inches.																														
July - -	3·99	24·96	2·51	11·96	2·64	10·61	3·03	12·31	1·92	12·78	2·23	12·79	2·47	12·10	1·38	15·53	2·70	12·98	2·54	16·56	1·84	13·47	1·55	15·53	2·00	14·81	0·92	13·30	2·24	13·48
August -	4·57	29·53	4·21	16·17	3·82	14·43	3·59	15·90	3·83	16·61	4·50	17·29	3·99	16·09	5·16	20·69	5·90	18·88	6·04	22·60	5·31	18·78	5·59	21·12	5·60	20·41	5·43	18·73	4·80	18·28
September -	7·37	36·90	4·95	21·12	2·34	16·77	1·87	17·77	2·16	18·77	2·25	19·54	2·71	18·80	8·36	29·05	5·24	24·12	4·30	26·90	4·18	22·96	3·82	24·94	5·18	25·59	3·37	22·10	3·95	22·23
Accumulated Heat.—Day Degrees above 42° F.																														
July - -	362	1119	424	1258	440	1248	461	1484	447	1510	488	1616	452	1423	422	1404	440	1427	441	1537	426	1472	454	1667	437	1502	496	1744	445	1465
August -	336	1455	381	1639	411	1659	456	1940	429	1939	482	2098	432	1855	399	1803	424	1851	421	1958	406	1878	425	2092	415	1917	498	2242	424	1889
September -	364	1819	402	2041	477	2136	537	2477	490	2429	560	2658	493	2348	429	2232	510	2361	512	2470	464	2342	484	2576	480	2397	601	2843	487	2376
Accumulated Heat.—Day Degrees below 42° F.																														
July - -	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
August -	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
September -	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
Bright Sunshine.—Numbers of Hours.																														
July - -	92	831	128	890	122	841	132	897	141	871	171	1012	139	902	166	951	126	866	189	1068	121	894	129	963	146	948	210	1307	143	928
August -	87	918	102	992	88	929	128	1025	118	989	140	1152	115	1017	116	1067	98	964	145	1213	90	984	107	1070	111	1059	175	1482	113	1041
September -	95	1013	137	1129	140	1069	200	1225	168	1157	184	1336	166	1183	128	1195	131	1096	167	1380	144	1128	169	1239	148	1207	214	1696	157	1198
Bright Sunshine.—Percentages of possible Duration.																														
July - -	19	30	28	32	27	30	30	33	32	32	39	37	31	33	37	34	28	31	43	39	27	33	29	35	33	34	49	48	32	34
August -	21	28	25	31	22	30	31	32	29	31	35	37	28	32	29	34	24	31	36	39	22	31	27	34	28	34	44	47	28	33
September -	22	28	31	31	31	30	46	34	38	32	43	37	38	33	29	33	29	30	38	39	33	31	39	34	34	33	50	47	36	33

EXPLANATION OF TABLES.

TABLES I. and IA. are merely in continuation of the Tables given in the Quarterly Summaries of the Weekly Weather Reports, 1884–90. The whole of the values for 1878–91, however, have been corrected by information received since they were first published.

TABLE II. In this Table the monthly values for *July* are those for the twenty-seventh to the thirtieth weeks in the year; those for *August* are for the thirty-first to the thirty-fourth weeks; those for *September* are for the thirty-fifth to the thirty-ninth weeks.

The figures given in the columns headed "From Jan. 4" are the values for the whole period elapsed since the beginning of the first week of the year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for the "Grazing, &c. Districts" the values for the "Channel Islands," are not included.

The Means for the British Islands generally are those for the Wheat Districts and Grazing Districts combined.

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QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1891.

VOL. VIII. APPENDIX I.] *New Series.* FOURTH QUARTER—OCTOBER TO DECEMBER. [*Price 4d.*

TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE FOURTH QUARTER OF THE TWENTY-SIX YEARS, 1866 TO 1891.

	YEARS.	Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.										Channel Islands.		Means for the British Islands generally.	
		0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the Grazing, &c. Districts.					
		Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.
RAINFALL (in Inches).	Means for 5 years, 1866–70	—	18·4	—	8·8	—	7·7	—	7·4	—	7·6	—	8·3	—	8·0	—	12·9	—	14·7	—	14·6	—	12·6	—	10·5	—	13·1	—	—	—	10·6
	Means for 5 years, 1871–75	—	17·2	—	10·4	—	7·7	—	7·2	—	7·9	—	9·9	—	8·6	—	13·1	—	13·3	—	16·3	—	11·1	—	12·1	—	13·2	—	—	—	10·9
	Means for 5 years, 1876–80	—	13·8	—	9·1	—	8·1	—	7·2	—	8·1	—	9·5	—	8·4	—	12·8	—	12·0	—	14·1	—	11·0	—	11·3	—	12·2	—	—	—	10·3
	1881	64	11·2	58	7·2	54	7·2	60	8·5	51	8·6	52	9·5	55	8·2	56	15·8	54	11·9	59	14·2	65	12·1	62	13·4	59	13·5	65	12·6	57	10·9
	1882	71	11·9	67	11·4	72	11·2	69	11·7	71	13·0	67	12·6	69	12·0	63	16·9	67	13·2	74	19·8	65	12·5	68	14·8	67	15·4	83	19·0	68	13·7
	1883	75	14·8	48	5·8	53	5·8	60	7·6	52	7·4	49	7·2	52	6·8	66	18·4	57	11·3	62	11·8	71	12·2	60	11·1	63	13·0	63	10·3	58	9·9
	1884	68	14·6	52	6·9	44	5·1	50	6·9	47	5·3	42	6·0	47	6·0	52	16·1	51	8·7	57	10·2	64	13·2	54	9·8	56	11·6	62	8·7	52	8·8
	1885	63	11·0	45	4·6	51	7·0	55	9·2	52	8·6	50	9·0	51	7·7	52	11·8	50	9·8	59	12·7	54	8·9	59	10·1	55	10·7	62	11·3	53	9·2
	Means for 5 years, 1881–85	68	12·7	54	7·2	55	7·3	59	8·8	55	8·6	52	8·9	55	8·2	58	15·8	56	11·0	62	13·7	64	11·8	61	11·8	60	12·8	67	12·4	58	10·5
	1886	75	14·3	60	7·8	56	10·0	58	9·5	64	10·9	67	14·4	61	10·5	65	16·8	69	14·3	75	19·1	71	15·5	69	16·0	70	16·3	85	16·3	66	13·4
	1887	73	13·0	55	7·8	59	7·7	56	6·3	47	5·9	50	7·8	53	7·1	51	12·4	55	8·1	55	12·0	57	10·0	47	9·7	53	10·4	64	11·9	53	8·8
	1888	69	15·9	57	9·3	46	5·7	42	5·6	43	8·4	50	8·6	48	7·5	57	16·8	56	10·1	61	14·0	60	10·4	63	13·8	61	13·0	66	10·2	55	10·3
	1889	65	12·3	52	6·6	49	6·6	51	6·0	47	5·3	46	8·2	49	6·5	58	13·3	58	9·4	59	11·8	61	10·8	59	11·6	58	11·4	66	12·2	54	9·0
	1890	74	19·3	62	10·8	56	6·7	46	5·4	49	5·6	48	4·9	52	6·7	60	17·1	56	11·4	62	11·3	65	13·6	58	11·8	60	13·0	63	8·9	56	9·9
	Means for 5 years, 1886–90	71	15·0	57	8·5	53	7·3	51	6·6	50	7·2	52	8·8	53	7·7	58	15·3	59	10·7	62	13·6	64	12·1	59	12·6	60	12·9	69	11·9	57	10·3
	1891	61	15·9	51	9·7	52	7·8	62	9·0	60	11·4	62	13·6	57	10·3	60	20·8	58	14·2	64	18·2	64	12·4	61	16·5	61	16·4	66	14·6	59	13·4
	Means for 26 years, 1866–91	—	15·4	—	8·8	—	7·6	—	7·5	—	8·0	—	9·2	—	8·2	—	14·2	—	12·4	—	14·6	—	11·7	—	11·9	—	13·0	—	—	—	10·6
MEAN TEMPERATURE (in Degrees Fahrenheit).	Means for 5 years, 1866–70	42°·1		42°·1		42°·5		43°·6		43°·4		44°·2		43°·2		43°·2		43°·8		47°·0		44°·0		45°·2		44°·6		—		43°·9	
	Means for 5 years, 1871–75	42·4		41·8		42·7		42·9		42·8		43·6		42·8		42·7		43·6		46·3		43·3		45·4		44·3		—		43·6	
	Means for 5 years, 1876–80	41·7		41·6		42·3		42·9		42·4		44·2		42·7		42·9		43·7		47·1		43·6		45·6		44·6		—		43·7	
	1881	43·2		43·0		43·2		43·5		43·2		45·2		43·6		44·3		44·5		47·7		44·3		46·8		45·5		49·3		44·6	
	1882	41·3		40·1		43·6		43·5		42·8		45·5		42·9		42·2		44·0		46·5		42·8		44·6		44·0		49·3		43·5	
	1883	42·4		43·0		43·8		44·2		43·8		45·6		44·1		44·3		45·0		46·9		44·6		46·5		45·5		49·5		44·8	
	1884	44·4		42·6		43·8		43·6		43·3		45·3		43·7		43·8		44·4		46·2		44·1		45·1		44·7		49·3		44·2	
	1885	41·5		41·5		42·6		42·3		41·9		44·0		42·5		42·9		42·7		45·0		43·7		45·1		43·9		48·3		43·2	
	Means for 5 years, 1881–85	42·6		42·0		43·4		43·4		43·0		45·1		43·4		43·5		44·1		46·5		43·9		45·6		44·7		49·1		44·1	
	1886	42·6		42·5		43·6		43·9		43·5		45·6		43·8		44·4		44·7		46·3		44·2		45·8		45·1		49·8		44·5	
	1887	39·2		39·4		40·3		40·2		39·9		41·7		40·3		40·7		41·3		42·7		41·8		42·8		41·9		46·5		41·1	
	1888	43·2		43·4		44·1		43·1		43·8		46·1		44·3		45·1		45·3		47·1		45·5		47·0		46·0		50·6		45·2	
	1889	43·1		42·2		43·1		43·0		42·7		44·9		43·2		44·4		44·1		45·8		45·0		46·2		45·1		49·1		44·2	
	1890	42·3		41·5		42·1		40·5		40·4		42·2		41·3		43·3		42·6		44·0		44·3		45·6		44·0		47·5		42·7	
	Means for 5 years, 1886–90	42·1		41·8		42·6		42·3		42·1		44·1		42·6		43·6		43·6		45·2		44·2		45·5		44·4		48·7		43·5	
	1891	42·0		40·8		42·3		43·6		42·5		45·6		41·0		43·4		43·7		45·9		43·3		44·8		44·2		49·4		43·6	
	Means for 26 years, 1866–91	42·2		41·8		42·7		43·1		42·7		44·3		42·9		43·2		43·8		46·4		43·8		45·4		44·5		—		43·7	

TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE TWENTY-SIX YEARS, 1866 TO 1891.

		Wheat Districts.	Grazing, &c. Districts.	Generally.
Rainfall	Driest	Ins. 3·4 in 1879	Ins. 5·0 in 1879	Ins. 4·2 in 1879
	Wettest	13·1 in 1872	18·6 in 1872	15·9 in 1872
Temperature	Coldest	40°·3 in 1887	41°·9 in 1887	41°·1 in 1887
	Warmest	45·6 in 1866	47·0 in 1866	46·3 in 1866

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TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE FOURTH QUARTER, 1891.

YEAR AND MONTHS.	0. Scotland, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat Producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the &c. Grazing, Districts.					
	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.	For the Month.	From Jan. 4.
1891.																														
Rainfall.—Numbers of Days with Rain.																														
October -	16	197	15	148	15	144	19	154	22	154	21	149	18	149	17	162	17	145	21	157	17	178	19	162	18	160	21	156	18	156
November -	18	215	17	165	18	162	20	174	17	171	17	166	18	167	17	179	18	163	18	175	20	198	17	179	18	178	19	175	18	174
December -	27	242	19	184	19	181	23	197	21	192	24	190	21	188	26	205	23	186	25	200	27	225	25	204	25	203	26	201	23	197
Rainfall.—Amounts in Inches.																														
October -	4·63	41·53	2·88	24·00	2·49	19·26	4·01	21·78	5·18	23·95	6·83	26·37	4·28	23·08	6·82	35·87	3·86	27·98	7·76	34·66	4·49	27·45	5·77	30·71	5·74	31·33	6·83	28·93	5·01	27·24
November -	4·12	45·65	2·92	26·92	2·48	21·74	1·88	23·66	2·54	26·49	2·96	29·33	2·56	25·64	4·85	40·71	3·94	31·92	3·93	38·59	2·78	30·23	3·55	34·26	3·81	35·14	3·18	32·11	3·19	30·43
December -	7·13	52·78	3·86	30·78	2·83	24·57	3·09	26·75	3·68	30·17	3·82	33·15	3·46	29·10	9·15	49·86	6·37	38·29	6·55	45·14	5·09	35·32	7·17	41·43	6·87	42·01	4·61	36·72	5·17	35·60
Accumulated Heat.—Day Degrees above 42° F.																														
October -	164	1983	164	2205	189	2325	241	2718	195	2626	271	2929	212	2560	182	2414	202	2562	226	2696	172	2514	194	2771	195	2592	327	3170	204	2577
November -	54	2037	47	2252	66	2391	92	2810	85	2711	107	3036	79	2639	73	2487	78	2640	111	2807	64	2578	97	2868	85	2677	163	3333	82	2659
December -	40	2077	30	2282	42	2433	85	2895	82	2793	108	3144	69	2708	72	2559	79	2719	123	2930	78	2656	134	3002	97	2774	210	3543	83	2742
Accumulated Heat.—Day Degrees below 42° F.																														
October -	40	661	58	728	10	603	5	694	17	685	1	566	18	655	26	488	8	457	0	434	28	419	18	327	16	426	0	162	17	542
November -	88	749	112	840	72	675	69	763	76	761	49	615	76	731	64	552	48	505	38	472	70	489	64	391	57	483	5	167	67	609
December -	137	886	183	1023	192	867	184	947	201	962	106	721	173	904	93	645	130	635	60	532	98	587	64	455	89	572	27	194	131	740
Bright Sunshine.—Numbers of Hours.																														
October -	85	1098	96	1225	79	1148	106	1331	98	1255	100	1436	96	1279	102	1297	89	1184	112	1492	120	1248	124	1363	109	1316	132	1828	103	1301
November -	31	1129	40	1265	28	1176	42	1373	39	1294	54	1490	41	1320	33	1330	27	1211	54	1546	49	1297	61	1424	45	1361	95	1923	43	1344
December -	20	1149	52	1317	49	1225	62	1435	59	1353	73	1563	59	1379	43	1373	44	1255	65	1611	54	1351	68	1492	55	1416	113	2036	57	1401
Bright Sunshine.—Percentages of possible Duration.																														
October -	31	27	34	31	28	29	37	34	35	32	35	37	34	33	36	33	32	30	38	38	43	31	44	35	39	33	45	48	37	33
November -	14	27	18	30	12	29	18	34	17	32	22	37	17	32	15	32	12	30	22	38	22	31	26	34	19	33	37	47	18	33
December -	8	26	22	30	19	28	23	33	22	31	26	36	22	32	17	31	17	29	23	37	20	31	25	34	20	32	40	46	21	32

EXPLANATION OF TABLES.

TABLES I. and IA. are merely in continuation of the Tables given in the Quarterly Summaries of the Weekly Weather Reports, 1884–90. The whole of the values for 1878–91, however, have been corrected by information received since they were first published.

TABLE II. In this Table the monthly values for *October* are those for the fortieth to forty-third weeks in the year; those for *November* are for the forty-fourth to the forty-seventh weeks; those for *December* are for the forty-eighth to the fifty-second weeks.

The figures given in the columns headed "From Jan. 4" are the values for the whole period elapsed since the beginning of the first week of the year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for the "Grazing, &c. Districts" the values for the "Channel Islands," are not included.

The Means for the British Islands generally are those for the Wheat Districts and Grazing Districts combined.

SUMMARY OF THE WEEKLY WEATHER REPORT, 1891.

VOL. VIII. APPENDIX I.] *New Series.* VALUES FOR THE WHOLE YEAR. [*Price 4d.*

TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE WHOLE YEAR DURING THE TWENTY-SIX YEARS, 1866 TO 1891.

	YEARS.	Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
		0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the Grazing, &c. Districts.					
		Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.
RAINFALL (in inches).	Means for 5 years, 1866–70	—	50·4	—	32·9	—	25·0	—	23·8	—	27·3	—	29·2	—	27·6	—	43·5	—	42·9	—	45·4	—	41·7	—	37·4	—	42·2	—	—	—	34·9
	Means for 5 years, 1871–75	—	47·8	—	35·4	—	26·5	—	24·6	—	30·1	—	31·4	—	29·6	—	44·7	—	44·0	—	52·0	—	40·3	—	39·6	—	44·1	—	—	—	36·9
	Means for 5 years, 1876–80	—	38·6	—	32·0	—	29·8	—	29·0	—	32·2	—	32·5	—	31·1	—	44·2	—	41·4	—	44·6	—	39·6	—	41·9	—	42·3	—	—	—	36·7
	1881	222	33·8	199	29·3	197	28·2	193	27·0	177	27·7	171	28·6	187	28·2	206	45·0	190	40·1	195	39·3	234	36·9	209	40·7	206	40·4	208	33·9	197	34·3
	1882	254	37·9	223	32·0	207	30·4	197	30·9	210	36·5	197	31·4	206	32·2	233	51·5	222	43·1	235	50·4	253	41·6	240	45·9	237	46·5	230	39·5	222	39·4
	1883	247	37·9	197	26·3	196	25·9	199	28·9	190	30·8	183	26·5	193	27·7	221	50·6	197	35·4	217	38·5	247	40·0	218	45·3	230	42·0	230	34·5	207	34·9
	1884	235	40·8	191	23·1	162	19·9	163	22·0	166	22·4	165	23·3	169	22·1	215	50·9	188	33·0	203	35·9	235	41·4	207	36·9	209	39·6	215	29·9	189	30·9
	1885	246	35·0	182	21·5	180	23·2	182	27·2	185	27·4	171	27·4	180	25·3	203	42·6	191	31·3	205	39·3	212	33·3	209	39·6	204	37·2	219	31·2	192	31·3
	Means for 5 years, 1881–85	241	37·1	198	26·4	188	25·5	187	27·2	186	29·0	177	27·4	187	27·1	216	48·1	198	36·6	211	40·7	236	38·6	217	41·7	216	41·1	222	33·8	202	34·1
	1886	263	39·1	204	24·9	199	29·2	193	26·2	202	33·1	195	32·9	199	29·3	218	48·1	214	43·0	218	46·5	234	42·8	227	46·3	232	45·3	251	33·6	211	37·3
	1887	241	41·6	183	24·4	174	20·6	166	19·1	148	19·2	150	21·5	164	21·0	181	38·7	163	24·9	159	28·3	188	32·3	159	28·5	170	30·5	181	26·2	167	25·8
	1888	242	43·9	208	30·4	187	25·6	188	24·2	175	26·8	184	28·5	188	27·1	200	46·5	200	31·1	208	38·4	217	36·9	197	39·9	205	38·6	228	31·9	199	32·9
	1889	245	42·0	197	26·0	182	24·1	189	26·3	175	26·8	175	25·6	185	25·8	211	42·4	197	32·4	197	35·9	232	38·5	210	37·6	209	37·4	210	30·2	200	31·6
	1890	264	55·1	222	32·9	193	25·0	184	22·7	182	22·0	180	25·4	192	25·6	224	52·8	210	35·0	218	38·1	216	38·8	229	41·4	225	41·2	216	33·1	209	33·4
	Means for 5 years, 1886–90	251	44·3	203	27·7	187	24·9	184	23·7	176	25·6	177	26·8	185	25·7	207	45·7	197	33·3	200	37·4	223	37·9	204	38·7	206	38·6	217	32·0	196	32·2
	1891	242	52·8	184	30·9	181	24·6	197	26·8	192	30·1	190	33·2	188	29·1	205	49·9	186	38·3	200	45·1	225	35·3	204	41·5	203	42·0	201	36·7	197	35·6
	Means for 26 years, 1866–91	—	44·0	—	30·9	—	26·3	—	25·7	—	28·9	—	29·6	—	28·3	—	45·4	—	39·6	—	44·1	—	39·5	—	39·9	—	41·7	—	—	—	35·0
MEAN TEMPERATURE (in Degrees Fahrenheit).	Means for 5 years, 1866–70	45°·9		47°·2		47°·1		49°·0		49°·1		49°·5		48°·4		48°·1		48°·8		51°·3		48°·9		50°·0		49°·4		—		48·9	
	Means for 5 years, 1871–75	46·3		47·1		47·4		48·4		48·8		49·3		48·2		48·1		48·6		50·9		48·4		50·3		49·3		—		48·8	
	Means for 5 years, 1876–80	45·4		46·3		47·1		48·3		48·2		49·3		47·8		47·6		48·1		50·6		47·9		50·1		48·9		—		48·4	
	1881	44·1		45·4		46·2		47·7		47·4		49·1		47·2		46·3		47·3		49·4		47·4		49·0		47·9		51·8		47·6	
	1882	46·2		47·3		48·4		49·1		48·7		50·4		48·8		48·2		49·0		50·3		48·7		49·8		49·2		51·7		49·0	
	1883	45·3		46·9		47·4		48·5		48·2		49·7		48·1		47·6		48·3		49·6		48·0		49·4		48·6		51·5		48·4	
	1884	46·6		47·7		48·7		49·8		49·5		51·0		49·3		48·6		49·3		50·7		48·8		50·2		49·5		52·5		49·4	
	1885	44·4		45·9		46·8		47·5		47·3		49·0		47·3		46·4		46·9		48·7		47·2		48·6		47·6		50·7		47·5	
	Means for 5 years, 1881–85	45·3		46·6		47·5		48·5		48·2		49·8		48·1		47·4		48·2		49·7		48·0		49·4		48·5		51·6		48·3	
	1886	44·3		45·6		46·4		47·5		47·4		49·0		47·2		46·3		47·1		48·8		47·0		48·7		47·6		51·2		47·4	
	1887	45·0		46·2		46·6		47·1		47·0		48·1		47·0		46·8		47·3		48·6		48·0		49·2		48·0		50·9		47·5	
	1888	44·4		45·1		46·1		47·0		46·7		48·2		46·6		46·7		47·1		48·3		47·5		48·9		47·7		50·8		47·2	
	1889	46·1		46·6		47·4		47·9		48·0		49·5		47·9		48·0		48·3		49·4		48·5		49·8		48·8		51·9		48·4	
	1890	46·0		46·6		47·6		47·7		47·5		49·1		47·7		47·7		48·1		49·2		48·4		49·7		48·6		51·3		48·2	
	Means for 5 years, 1886–90	45·2		46·1		46·8		47·4		47·3		48·8		47·3		47·1		47·6		48·9		47·9		49·3		48·2		51·2		47·8	
	1891	45·5		45·7		46·5		47·5		47·2		48·9		47·2		47·3		47·8		48·8		47·8		49·0		48·1		51·3		47·7	
	Means for 26 years, 1866–91	45·6		46·6		47·2		48·3		48·3		49·3		47·9		47·6		48·3		50·2		48·2		49·8		48·8		—		48·4	

TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST YEARS FOR THE TWENTY-SIX YEARS, 1866 TO 1891.

		Wheat Districts.	Grazing, &c. Districts.	Generally.
Rainfall	Driest	Ins. 21·0 in 1887	Ins. 30·5 in 1887	Ins. 25·8 in 1887
	Wettest	40·2 in 1872	58·0 in 1872	49·1 in 1872
Temperature	Coldest	45°·5 in 1879	46°·9 in 1879	46°·2 in 1879
	Warmest	50·1 in 1868	50·7 in 1868	50·4 in 1868

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NOTES.

1.—Rainfall.

The mean values for the Rainfall in the districts given as Table I. in the various Quarterly Summaries were obtained as follows. Those for the years 1866 to 1877 were derived from observations made at the following stations:—

Districts.	Stations.
0. SCOTLAND, N.	Loch Broom. Helmsdale. Sandwick Manse.
1. SCOTLAND, E.	Inverness. Aberdeen. Ballater. Logierait. Stirling. Hawick.
2. ENGLAND, N.E.	N. Shields. York. Grimsby. Boston.
3. ENGLAND, E.	1866 to 1875.: Fakenham. Beccles. Witham. Bury St. Edmunds. 1876 &1877.: Yarmouth. Cambridge. Bury St. Edmunds.
4. MIDLAND COUNTIES	Leicester. Derby. Tenbury. Shiffnal. Cirencester. Banbury. Hitchin.
5. ENGLAND, S.	Bridport. Selborne. Maidstone. London (Camden Town).
6. SCOTLAND, W.	Dumfries. Ayr. Castle Toward.
7. ENGLAND, N.W., and N. WALES	Llandudno. Manchester. Skipton.
8. ENGLAND, S.W., and S. WALES	Barnstaple. Bodmin. Haverfordwest. Rhayader.
9. IRELAND, N.	Galway. Bunninadden, Co. Sligo. (Doo Castle.) Waringstown. Strabane.
10. IRELAND, S.	Cork. Waterford. Killaloe. Portarlington. Monkstown, Co. Dublin.

(The values were obtained mainly from Symons' Monthly Meteorological Magazine, supplemented by some of the values contained in the Reports of the Rainfall Committee of the British Association, 1868–1876.)

2.—Temperature.

The Temperature values for the years 1866 to 1877 have been obtained from the following stations:—

Districts.	Stations.
0. SCOTLAND, N.	Sandwick Manse. Stornoway. Dunrobin.
1. SCOTLAND, E.	Culloden. Aberdeen. Perth. Leith.
2. ENGLAND, N.E.	Bywell. N. Shields. Hull.
3. ENGLAND, E.	Royston. Holkham. Norwich. Wisbeach. Somerleyton.
4. MIDLAND COUNTIES	Derby. Nottingham. Cardington. Oxford.
5. ENGLAND, S.	Marlborough. Greenwich. Streatley. London (Camden Town). Weybridge. Strathfield Turgiss. Osborne. Bournemouth. Worthing.
6. SCOTLAND, W.	Greenock. Cockermouth. Silloth. Carlisle.
7. ENGLAND, N.W., and N. WALES	Stonyhurst. Bradford. Leeds. Eccles. Liverpool. Llandudno.
8. ENGLAND, S.W., and S. WALES	Gloucester. Taunton. Barnstaple. Truro. Helston.
9. IRELAND, N.	1866 to 1873.: Belfast. Milltown (Banbridge). Armagh.† Athlone.* 1874 to 1877.: Moville. Milltown. Armagh. Donaghadee.
10. IRELAND, S.	1866 to 1873.: Dublin.* Curragh Camp. Buttevant.* Cork. Valencia.† 1874 to 1877.: Kingstown. Parsonstown. Cork. Roche's Point. Valencia.

(The values were obtained mainly from the returns published quarterly by the Registrar General, by the Scottish Meteorological Society (in their Quarterly Journal), and the reports of the Army Medical Department, besides the records of the two Irish observatories, Valencia and Armagh. The returns for Cork were furnished by R. Caulfield, Esq., LL.D.)

For the years 1878 to 1891 the means are obtained from the observations published in the Weekly Weather Report.

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* Did not commence till January 1867.

† Did not commence till January 1869.

By Order,

ROBERT H. SCOTT, Secretary.

(OFFICIAL COPY.)

WEEKLY WEATHER REPORT, 1891.

VOL. VIII. APPENDIX II.] [*Price* 1*s*.
Second Series.

TABLE I.—SHOWING THE WEEKLY AND PROGRESSIVE NUMBERS OF RAINY DAYS IN EACH DISTRICT, DURING THE YEAR 1891.

DATE. — LIMITS OF WEEKS.	0. Scotland, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.																Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for Grazing, &c. Districts.							
	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.					Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.
	Numbers of Days with Rain.																															
1891.																																
Jan. 4-10	4	4	2	2	3	3	4	4	2	2	2	2	3	3	2	2	1	1	2	2	2	2	2	2	2	2					3	3
11-17	6	10	2	4	5	8	5	9	2	4	3	5	3	6	3	5	1	2	1	3	4	6	3	5	2	4	3	5	2	5		
18-24	7	17	5	9	5	13	5	14	4	8	5	10	5	11	7	12	5	7	6	9	7	13	6	11	6	10	6	11	5	10		
25-31	7	24	5	14	3	16	5	19	6	14	7	17	5	16	6	18	6	13	6	15	6	19	6	17	6	16	6	17	6	16		
Feb. 1-7	6	30	2	16	1	17	1	20	1	15	1	18	1	17	5	23	2	15	2	17	3	22	2	19	3	19	1	18	2	18		
8-14	6	36	3	19	2	19	1	21	1	16	1	19	2	19	4	27	2	17	1	18	2	24	2	21	2	21	2	20	2	20		
15-21	1	37	0	19	0	19	0	21	0	16	0	19	0	19	1	28	0	17	0	18	1	25	1	22	1	22	0	20	0	20		
22-28	3	40	0	19	0	19	0	21	0	16	0	19	0	19	1	29	1	18	0	18	2	27	1	23	1	23	0	20	1	21		
Mar. 1-7	7	47	4	23	3	22	2	23	3	19	1	20	3	22	6	35	5	23	3	21	6	33	3	26	5	28	2	22	4	25		
8-14	2	49	2	25	5	27	5	28	4	23	5	25	4	26	1	36	1	24	5	26	1	34	2	28	2	30	7	29	3	28		
15-21	5	54	4	29	6	33	6	34	5	28	5	30	5	31	2	38	2	26	3	29	4	38	3	31	3	33	3	32	4	32		
22-28	7	61	5	34	5	38	5	39	5	33	5	35	5	36	6	44	5	31	5	34	6	44	5	36	5	38	6	38	5	37		
Mar. 29-April 4	4	65	4	38	5	43	4	43	4	37	3	38	4	40	3	47	4	35	4	38	5	49	6	42	4	42	5	43	4	41		
April 5-11	1	66	2	40	4	47	5	48	4	41	4	42	4	44	1	48	3	38	2	40	2	51	2	44	2	44	2	45	3	44		
12-18	4	70	2	42	3	50	3	51	2	43	2	44	2	46	2	50	2	40	2	42	4	55	3	47	3	47	2	47	3	47		
19-25	2	72	1	43	3	53	1	52	1	44	0	44	1	47	1	51	1	41	1	43	0	55	1	48	1	48	2	49	1	48		
April 26-May 2	6	78	4	47	3	56	3	55	4	48	3	47	4	51	5	56	4	45	4	47	5	60	5	53	4	52	4	53	4	52		
May 3-9	3	81	3	50	2	58	2	57	3	51	2	49	2	53	3	59	3	48	3	50	4	64	4	57	3	55	3	56	3	55		
10-16	5	86	3	53	2	60	3	60	3	54	2	51	3	56	3	62	3	51	2	52	3	67	2	59	3	58	2	58	3	58		
17-23	5	91	3	56	4	64	6	66	6	60	6	57	5	61	4	66	4	55	5	57	5	72	6	65	5	63	5	63	5	63		
24-30	6	97	6	62	5	69	5	71	6	66	5	62	5	66	4	70	4	59	5	62	5	77	5	70	4	67	5	68	4	67		
May 31-June 6	0	97	1	63	1	70	4	75	5	71	3	65	2	68	2	72	4	63	5	67	5	82	5	75	4	71	5	73	3	70		
June 7-13	1	98	1	64	1	71	1	76	0	71	1	66	1	69	1	73	0	63	1	68	1	83	1	76	1	72	2	75	1	71		
14-20	5	103	3	67	2	73	2	78	1	72	1	67	2	71	2	75	2	65	1	69	2	85	1	77	2	74	1	76	2	73		
21-27	2	105	2	69	2	75	3	81	4	76	5	72	3	74	3	78	4	69	4	73	4	89	4	81	4	78	3	79	3	76		
June 28-July 4	5	110	5	74	3	78	3	84	4	80	4	76	4	78	5	83	4	73	7	80	6	95	6	87	5	83	5	84	5	81		
July 5-11	5	115	4	78	3	81	4	88	4	84	4	80	4	82	4	87	4	77	4	84	4	99	3	90	4	87	3	87	4	85		
12-18	4	119	5	83	3	84	2	90	2	86	1	81	3	85	4	91	2	79	2	86	3	102	2	92	2	89	2	89	3	88		
19-25	6	125	4	87	3	87	5	95	4	90	3	84	4	89	3	94	5	84	4	90	4	106	4	96	4	93	2	91	4	92		
July 26-Aug. 1	5	130	3	90	3	90	6	101	5	95	5	89	4	93	2	96	4	88	4	94	5	111	4	100	4	97	5	96	4	96		
Aug. 2-8	6	136	6	96	5	95	5	106	5	100	4	93	5	98	5	101	4	92	4	98	5	116	5	105	5	102	4	100	5	101		
9-15	6	142	5	101	5	100	4	110	4	104	4	97	4	102	6	107	5	97	6	104	6	122	5	110	5	107	4	104	5	106		
16-22	4	146	4	105	5	105	5	115	5	109	6	103	5	107	5	112	4	101	5	109	6	128	6	116	5	112	6	110	5	111		
23-29	6	152	5	110	6	111	5	120	6	115	6	109	6	113	5	117	6	107	6	115	6	134	6	122	6	118	6	116	6	117		
Aug. 30-Sept. 5	6	158	6	116	4	115	3	123	4	119	4	113	4	117	7	124	5	112	5	120	6	140	6	128	6	124	5	121	5	122		
Sept. 6-12	5	163	2	118	2	117	1	124	1	120	2	115	2	119	3	127	2	114	2	122	4	144	3	131	3	127	1	122	3	125		
13-19	7	170	5	123	4	121	4	128	4	124	5	120	4	123	6	133	5	119	5	127	6	150	4	135	5	132	5	127	4	129		
20-26	5	175	5	128	5	126	4	132	5	129	5	125	5	128	5	138	5	124	5	132	5	155	4	139	5	137	5	132	5	134		
Sept. 27-Oct. 3	6	181	5	133	3	129	3	135	3	132	3	128	3	131	7	145	4	128	4	136	6	161	4	143	5	142	3	135	4	138		
Oct. 4-10	5	186	5	138	4	133	4	139	6	138	6	134	5	136	6	151	5	133	6	142	6	167	6	149	6	148	6	141	6	144		
11-17	6	192	5	143	5	138	6	145	7	145	7	141	6	142	6	157	6	139	7	149	7	174	7	156	6	154	7	148	6	150		
18-24	5	197	4	147	5	143	6	151	6	151	6	147	5	147	5	162	6	145	6	155	4	178	5	161	5	159	6	154	5	155		
25-31	0	197	1	148	1	144	3	154	3	154	2	149	2	149	0	162	0	145	2	157	0	178	1	162	1	160	2	156	1	156		
Nov. 1-7	3	200	2	150	2	146	4	158	2	156	1	150	2	151	1	163	1	146	1	158	1	179	1	163	1	161	1	157	1	157		
8-14	6	206	6	156	6	152	6	164	7	163	7	157	7	158	6	169	6	152	7	165	6	185	6	169	6	167	7	164	7	164		
15-21	5	211	6	162	6	158	5	169	4	167	5	162	5	163	5	174	6	158	5	170	6	191	5	174	5	172	6	170	5	169		
22-28	4	215	3	165	4	162	5	174	4	171	4	166	4	167	5	179	5	163	5	175	7	198	5	179	6	178	5	175	5	174		
Nov. 29-Dec. 5	6	221	5	170	4	166	7	181	5	176	7	173	6	173	7	186	5	168	6	181	7	205	6	185	6	184	7	182	6	180		
Dec. 6-12	7	228	5	175	6	172	6	187	7	183	7	180	6	179	7	193	7	175	7	188	7	212	7	192	7	191	7	189	7	187		
13-19	5	233	3	178	4	176	3	190	3	186	3	183	3	182	4	197	3	178	3	191	4	216	4	196	4	195	3	192	3	190		
20-26	2	235	1	179	1	177	2	192	1	187	2	185	1	183	2	199	2	180	2	193	2	218	2	198	2	197	3	195	2	192		
Dec. 27-Jan. 2, 1892	7	242	5	184	4	181	5	197	5	192	5	190	5	188	6	205	6	186	7	200	7	225	6	204	6	203	6	201	5	197		

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TABLE II.—SHOWING THE WEEKLY AND PROGRESSIVE AMOUNTS OF RAINFALL IN EACH DISTRICT, DURING THE YEAR 1891.

DATE. — LIMITS OF WEEKS.	Principal Wheat-producing Districts.														Principal Grazing, &c. Districts.														Channel Islands.		Means for the British Islands generally.	
	0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for Grazing, &c. Districts.						
	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.
	Rainfall in Inches.																													
1891.																														
Jan. 4-10	0·26	0·26	0·15	0·15	0·15	0·15	0·28	0·28	0·08	0·08	0·08	0·08	0·15	0·15	0·27	0·27	0·11	0·11	0·36	0·36	0·16	0·16	0·38	0·38	0·26	0·26	0·36	0·36	0·21	0·21
11-17	0·62	0·88	0·19	0·34	0·30	0·45	0·30	0·58	0·07	0·15	0·26	0·34	0·22	0·37	0·25	0·52	0·03	0·14	0·07	0·43	0·14	0·30	0·08	0·46	0·11	0·37	0·23	0·59	0·16	0·37
18-24	2·26	3·14	0·64	0·98	0·26	0·71	0·63	1·21	0·90	1·05	1·00	1·34	0·68	1·05	1·80	2·32	1·25	1·39	1·48	1·91	0·99	1·29	0·99	1·45	1·30	1·67	0·68	1·17	0·99	1·36
25-31	1·79	4·93	0·34	1·32	0·17	0·88	0·59	1·80	0·83	1·88	1·20	2·54	0·63	1·68	1·63	3·95	0·58	1·97	1·41	3·32	0·57	1·86	0·92	2·37	1·02	2·69	1·11	2·28	0·83	2·19
Feb. 1-7	1·95	6·88	0·33	1·65	0·02	0·90	0·02	1·82	0·01	1·89	0·02	2·56	0·08	1·76	0·37	4·32	0·11	2·08	0·06	3·38	0·13	1·99	0·09	2·46	0·15	2·84	0·01	2·29	0·12	2·31
8-14	2·31	9·19	0·22	1·87	0·04	0·94	0·02	1·84	0·04	1·93	0·01	2·57	0·07	1·83	0·27	4·59	0·11	2·19	0·04	3·42	0·07	2·06	0·11	2·57	0·12	2·96	0·04	2·33	0·09	2·40
15-21	0·04	9·23	0·00	1·87	0·00	0·94	0·01	1·85	0·00	1·93	0·01	2·58	0·00	1·83	0·03	4·62	0·00	2·19	0·00	3·42	0·05	2·11	0·13	2·70	0·04	3·00	0·01	2·34	0·02	2·42
22-28	0·77	10·00	0·02	1·89	0·03	0·97	0·01	1·86	0·00	1·93	0·02	2·60	0·02	1·85	0·28	4·90	0·05	2·24	0·01	3·43	0·13	2·24	0·03	2·73	0·10	3·10	0·00	2·34	0·06	2·48
Mar. 1-7	2·22	12·22	0·44	2·33	0·37	1·34	0·34	2·20	0·39	2·32	0·40	3·00	0·39	2·24	1·69	6·59	0·48	2·72	0·42	3·85	0·63	2·87	0·19	2·92	0·68	3·78	0·19	2·53	0·54	3·02
8-14	0·46	12·68	0·26	2·59	0·71	2·05	0·28	2·48	0·32	2·64	1·14	4·14	0·54	2·78	0·09	6·68	0·06	2·78	0·88	4·73	0·41	3·28	0·34	3·26	0·36	4·14	2·33	4·86	0·45	3·47
15-21	0·18	12·86	1·39	3·98	0·93	2·98	0·47	2·95	0·44	3·08	0·54	4·68	0·75	3·53	0·74	7·42	0·25	3·03	0·51	5·24	0·37	3·65	0·41	3·67	0·46	4·60	0·43	5·29	0·60	4·07
22-28	1·56	14·42	0·52	4·50	0·26	3·24	0·31	3·26	0·25	3·33	0·55	5·23	0·38	3·91	0·93	8·35	0·51	3·54	0·49	5·73	0·83	4·48	0·54	4·21	0·66	5·26	0·29	5·58	0·52	4·59
Mar. 29-April 4	0·24	14·66	0·56	5·06	0·45	3·69	0·51	3·77	0·81	4·14	0·54	5·77	0·58	4·49	0·80	9·15	0·87	4·41	1·07	6·80	1·04	5·52	1·38	5·59	1·03	6·29	0·61	6·19	0·81	5·40
April 5-11	0·03	14·69	0·28	5·34	0·67	4·36	0·46	4·23	0·45	4·59	0·19	5·96	0·41	4·90	0·17	9·32	0·23	4·64	0·12	6·92	0·14	5·66	0·21	5·80	0·17	6·46	0·04	6·23	0·29	5·69
12-18	0·38	15·07	0·15	5·49	0·16	4·52	0·14	4·37	0·10	4·69	0·06	6·02	0·12	5·02	0·17	9·49	0·07	4·71	0·12	7·04	0·39	6·05	0·54	6·34	0·26	6·72	0·17	6·40	0·19	5·88
19-25	0·09	15·16	0·06	5·55	0·12	4·64	0·02	4·39	0·13	4·82	0·00	6·02	0·07	5·09	0·02	9·51	0·02	4·73	0·13	7·17	0·01	6·06	0·04	6·38	0·05	6·77	0·21	6·61	0·06	5·94
April 26-May 2	0·89	16·05	0·79	6·34	0·32	4·96	0·34	4·73	0·56	5·38	0·33	6·35	0·47	5·56	1·00	10·51	0·85	5·58	0·82	7·99	0·90	6·96	0·54	6·92	0·82	7·59	0·28	6·89	0·65	6·59
May 3-9	0·16	16·21	0·23	6·57	0·22	5·18	0·12	4·85	0·26	5·64	0·12	6·47	0·19	5·75	0·51	11·02	0·25	5·83	0·67	8·66	0·84	7·80	0·69	7·61	0·59	8·18	0·68	7·57	0·39	6·98
10-16	0·86	17·07	0·31	6·88	0·17	5·35	0·22	5·07	0·32	5·96	0·21	6·68	0·25	6·00	0·36	11·38	0·39	6·22	0·11	8·77	0·30	8·10	0·15	7·76	0·26	8·44	0·13	7·70	0·26	7·24
17-23	0·51	17·58	0·35	7·23	0·38	5·73	1·36	6·43	1·18	7·14	1·35	8·03	0·92	6·92	0·28	11·66	0·49	6·71	1·26	10·03	0·47	8·57	1·18	8·94	0·74	9·18	1·18	8·88	0·83	8·07
24-30	0·75	18·33	0·84	8·07	1·18	6·91	0·88	7·31	0·86	8·00	0·71	8·74	0·89	7·81	0·54	12·20	0·54	7·25	0·56	10·59	0·69	9·26	0·90	9·84	0·65	9·83	0·57	9·45	0·77	8·84
May 31-June 6	0·00	18·33	0·02	8·09	0·30	7·21	0·80	8·11	1·18	9·18	0·35	9·09	0·53	8·34	0·28	12·48	1·10	8·35	1·22	11·81	0·40	9·66	1·68	11·52	0·93	10·76	1·60	11·05	0·73	9·57
June 7-13	0·08	18·41	0·04	8·13	0·03	7·24	0·01	8·12	0·00	9·18	0·08	9·17	0·03	8·37	0·05	12·53	0·01	8·36	0·04	11·85	0·08	9·74	0·11	11·63	0·06	10·82	0·28	11·33	0·04	9·61
14-20	0·86	19·27	0·15	8·28	0·19	7·43	0·07	8·19	0·16	9·34	0·05	9·22	0·13	8·50	0·24	12·77	0·18	8·54	0·04	11·89	0·30	10·04	0·14	11·77	0·18	11·00	0·01	11·34	0·16	9·77
21-27	0·63	19·90	0·32	8·60	0·11	7·54	0·65	8·84	1·06	10·40	0·95	10·17	0·62	9·12	0·74	13·51	1·13	9·67	0·85	12·74	0·55	10·59	0·94	12·71	0·84	11·84	0·21	11·55	0·73	10·50
June 28 July 4	1·07	20·97	0·85	9·45	0·43	7·97	0·44	9·28	0·46	10·86	0·39	10·56	0·51	9·63	0·64	14·15	0·61	10·28	1·28	14·02	1·04	11·63	1·27	13·98	0·97	12·81	0·83	12·38	0·74	11·24
July 5-11	1·20	22·17	0·82	10·27	0·54	8·51	0·79	10·07	0·89	11·75	0·60	11·16	0·73	10·36	0·60	14·75	0·85	11·13	0·64	14·66	0·57	12·20	0·27	14·25	0·59	13·40	0·17	12·55	0·66	11·90
12-18	0·66	22·83	0·86	11·13	0·55	9·06	0·29	10·36	0·07	11·82	0·05	11·21	0·36	10·72	0·38	15·13	0·07	11·20	0·30	14·96	0·39	12·59	0·62	14·87	0·35	13·75	0·28	12·83	0·36	12·26
19-25	1·11	23·94	0·52	11·65	0·81	9·87	0·79	11·15	0·31	12·13	0·41	11·62	0·57	11·29	0·23	15·36	1·24	12·44	1·13	16·09	0·51	13·10	0·47	15·34	0·71	14·46	0·11	12·94	0·64	12·90
July 26-Aug. 1	1·02	24·96	0·31	11·96	0·74	10·61	1·16	12·31	0·65	12·78	1·17	12·79	0·81	12·10	0·17	15·53	0·54	12·98	0·47	16·56	0·37	13·47	0·19	15·53	0·35	14·81	0·36	13·30	0·58	13·48
Aug. 2-8	1·39	26·35	0·99	12·95	0·89	11·50	0·83	13·14	0·67	13·45	0·71	13·50	0·82	12·92	1·08	16·61	1·43	14·41	0·88	17·44	0·66	14·13	1·45	16·98	1·10	15·91	0·80	14·10	0·96	14·44
9-15	1·24	27·59	0·71	13·66	0·62	12·12	0·39	13·53	0·50	13·95	0·38	13·88	0·52	13·44	1·17	17·78	1·35	15·76	0·77	18·21	1·20	15·33	0·73	17·71	1·04	16·95	0·68	14·78	0·78	15·22
16-22	0·74	28·33	1·54	15·20	1·33	13·45	1·60	15·13	1·21	15·16	2·15	16·03	1·56	15·00	1·06	18·84	0·82	16·58	2·16	20·37	1·57	16·90	1·74	19·45	1·47	18·42	2·21	16·99	1·52	16·74
23-29	1·20	29·53	0·97	16·17	0·98	14·43	0·77	15·90	1·45	16·61	1·26	17·29	1·09	16·09	1·85	20·69	2·30	18·88	2·23	22 60	1·88	18·78	1·67	21·12	1·99	20·41	1·74	18·73	1·54	18·28
Aug. 30-Sept. 5	2·37	31·90	1·10	17·27	0·49	14·92	0·32	16·22	0·50	17·11	0·59	17·88	0·60	16·69	3·11	23·80	1·24	20·12	1·03	23·63	1·75	20·53	1·22	22·34	1·67	22·08	0·59	19·32	1·14	19·42
Sept. 6-12	0·62	32·52	0·21	17·48	0·17	15·09	0·05	16·27	0·14	17·25	0·11	17·99	0·14	16·83	0·79	24·59	0·56	20·68	0·46	24·09	0·46	20·99	0·88	23·22	0·63	22·71	0·19	19·51	0·38	19·80
13-19	1·36	33·88	0·63	18·11	0·58	15·67	0·60	16·87	0·56	17·81	0·71	18·70	0·61	17·44	0·92	25·51	1·08	21·76	1·37	25·46	0·43	21·42	0·32	23·54	0·82	23·53	1·13	20·64	0·72	20·52
20-26	1·51	35·39	2·70	20·81	0·83	16·50	0·38	17·25	0·56	18·37	0·40	19·10	0·97	18·41	1·91	27·42	1·18	22·94	0·74	26·20	0·78	22·20	0·87	24·41	1·10	24·63	0·71	21·35	1·03	21·55
Sept. 27-Oct. 3	1·51	36·90	0·31	21·12	0·27	16·77	0·52	17·77	0·40	18·77	0·44	19·54	0·39	18·80	1·63	29·05	1·18	24·12	0·70	26·90	0·76	22·96	0·53	24·94	0·96	25·59	0·75	22·10	0·68	22·23
Oct. 4-10	1·87	38·77	1·17	22·29	1·01	17·78	0·95	18·72	1·92	20·69	2·07	21·61	1·42	20·22	2·54	31·59	0·74	24·86	2·38	29·28	1·67	24·63	2·06	27·00	1·88	27·47	2·11	24·21	1·65	23·88
11-17	1·89	40·66	1·21	23·50	0·89	18·67	0·94	19·66	1·55	22·24	1·90	23·60	1·32	21·54	2·21	33·80	1·83	26·69	2·70	31·98	2·08	26·71	2·22	29·22	2·21	29·68	1·82	26·03	1·76	25·04
18-24	0·86	41·52	0·49	23·99	0·55	19·22	1·73	21·39	1·45	23·69	2·47	26·07	1·31	22·88	2·07	35·87	1·27	27·96	2·50	34·48	0·74	27·45	1·48	30·70	1·61	31·29	2·44	28·47	1·48	27·12
25-31	0·01	41·53	0·01	24·00	0·04	19·26	0·39	21·78	0·26	23·95	0·30	26·37	0·20	23·08	0·00	35·87	0·02	27·98	0·18	34·66	0·00	27·45	0·01	30·71	0·04	31·33	0·46	28·93	0·12	27·24
Nov. 1-7	0·11	41·64	0·06	24·06	0·05	19·31	0·09	21·87	0·02	23·97	0·03	26·40	0·05	23·13	0·10	35·97	0·04	28·02	0·02	34·68	0·11	27·56	0·03	30·74	0·06	31·39	0·02	28·95	0·06	27·30
8-14	2·27	43·91	1·66	25·72	1·35	20·66	0·97	22·84	1·46	25·43	2·05	28·45	1·50	24·63	2·41	38·38	1·96	29·98	2·65	37·33	1·14	28·70	2·15	32·89	2·06	33·45	1·96	30·91	1·78	29·08
15-21	0·94	44·85	0·94	26·66	0·68	21·34	0·41	23·25	0·58	26·01	0·38	28·83	0·60	25·23	1·29	39·07	1·08	31·06	0·52	37·85	0·74	29·44	0·48	33·37	0·82	34·27	0·40	31·31	0·71	29·79
22-28	0·80	45·65	0·26	26·92	0·40	21·74	0·41	23·66	0·48	26·49	0·50	29·33	0·41	25·64	1·05	40·72	0·86	31·92	0·74	38·59	0·79	30·23	0·89	34·26	0·87	35·14	0·80	32·11	0·64	30·43
Nov. 29-Dec. 5	1·94	47·59	0·81	27·73	0·44	22·18	0·78	24·44	0·65	27·14	1·12	30·45	0·76	26·40	2·11	42·83	1·19	33·11	1·33	39·92	1·33	31·56	1·61	35·87	1·51	36·65	1·13	33·24	1·14	31·57
Dec. 6-12	1·87	49·46	1·34	29·07	1·68	23·81	1·04	25·48	1·63	28·77	1·46	31·91	1·42	27·82	3·24	46·07	2·90	36·01	2·32	42·24	2·12	33·68	3·18	39·05	2·75	39·40	2·09	35·33	2·08	33·65
13-19	1·24	50·70	0·73	29·80	0·54	24·35	0·60	26·08	0·55	29·32	0·45	32·36	0·57	28·39	1·38	47·45	0·77	36·78	1·05	43·29	0·40	34·08	0·93	39·98	0·91	40·31	0·49	35·82	0·74	34·39
20-26	0·34	51·04	0·12	29·92	0·02	24·37	0·08	26·16	0·12	29·44	0·23	32·59	0·12	28·51	0·61	48·06	0·19	36·97	0·40	43·69	0·19	34·27	0·48	40·46	0·38	40·69	0·29	36·11	0·25	34·64
Dec. 27-Jan 2, 1892	1·74	52·78	0·86	30·78	0·20	24·57	0·59	26·75	0·73	30·17	0·56	33·15	0·59	29·10	1·81	49·87	1·32	38·29	1·45	45·14	1·05	35·32	0·97	41·43	1·32	42·01	0·61	36·72	0·96	35·60

TABLE III.—SHOWING THE WEEKLY AND PROGRESSIVE VALUES OF ACCUMULATED HEAT ABOVE 42° F. IN EACH DISTRICT, DURING THE YEAR 1891.

DATE. — LIMITS OF WEEKS.	0. Scotland, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for Grazing, &c. Districts.					
	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.
	Day-Degrees above 42° Fahrenheit.																													
1891.																														
Jan. 4-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-17	6	6	2	2	0	0	0	0	0	0	0	0	1	1	8	8	0	0	0	0	8	8	7	7	5	5	4	4	3	3
18-24	0	6	0	2	0	0	0	0	0	0	0	0	0	1	0	8	0	0	5	5	2	10	12	19	4	9	11	15	2	5
25-31	11	17	10	12	22	22	25	25	28	28	22	22	21	22	17	25	22	22	26	31	24	34	32	51	24	33	38	53	23	28
Feb. 1-7	23	40	26	38	24	46	12	37	23	51	13	35	20	42	20	45	19	41	18	49	25	59	29	80	22	55	20	73	21	49
8-14	8	48	11	49	10	56	5	42	10	61	5	40	8	50	11	56	10	51	12	61	15	74	29	109	16	71	20	93	12	61
15-21	30	78	23	72	9	65	4	46	10	71	13	53	12	62	24	80	17	68	19	80	34	108	37	146	26	97	29	122	19	80
22-28	40	118	43	115	19	84	29	75	34	105	27	80	30	92	37	117	49	117	46	126	43	151	46	192	44	141	46	168	37	117
Mar. 1-7	8	126	16	131	31	115	42	117	35	140	34	114	31	123	23	140	26	143	29	155	28	179	34	226	28	169	32	200	30	147
8-14	0	126	0	131	0	115	0	117	0	140	0	114	0	123	0	140	0	143	0	155	0	179	3	229	1	170	0	200	0	147
15-21	3	129	0	131	0	115	9	126	7	147	8	122	5	128	6	146	4	147	11	166	13	192	17	246	10	180	20	220	8	155
22-28	1	130	8	139	11	126	16	142	15	162	14	136	13	141	8	154	10	157	15	181	12	204	26	272	14	194	24	244	14	169
Mar. 29-April 4	2	132	1	140	1	127	12	154	16	178	19	155	10	151	7	161	10	167	17	198	12	216	30	302	15	209	27	271	12	181
April 5-11	15	147	9	149	8	130	13	167	14	192	24	179	13	164	13	174	12	179	24	222	24	240	33	335	21	230	27	298	17	198
12-18	20	167	22	171	19	149	31	198	32	224	36	215	28	192	34	208	27	206	39	261	34	274	40	375	35	265	32	330	32	230
19-25	22	189	22	193	16	165	29	227	32	256	39	254	27	219	35	243	28	234	33	294	35	309	38	413	34	299	42	372	31	261
April 26-May 2	18	207	35	228	36	201	53	280	52	308	50	304	45	264	33	276	38	272	45	339	33	342	44	457	38	337	62	434	41	302
May 3-9	41	248	40	268	36	237	53	333	58	366	57	361	49	313	47	323	50	322	51	390	46	388	49	506	43	385	60	494	49	351
10-16	45	293	53	321	49	286	64	397	75	441	88	449	66	379	56	379	62	384	85	475	54	442	73	579	66	451	75	569	66	417
17-23	33	326	37	358	30	316	36	433	36	477	33	488	35	414	40	419	34	418	37	512	34	476	38	617	37	488	44	613	36	453
24-30	33	359	39	397	37	353	46	479	44	521	53	541	44	458	43	462	43	461	45	557	42	518	46	663	44	532	59	672	44	497
May 31-June 6	57	416	51	448	60	413	94	573	98	619	109	650	82	540	86	548	94	555	94	651	81	599	92	755	89	621	102	774	85	582
June 7-13	50	466	61	509	55	468	63	636	72	691	82	732	67	607	70	618	64	619	83	734	71	670	83	838	74	695	83	857	70	652
14-20	79	545	106	615	106	574	115	751	117	808	125	857	114	721	112	730	111	730	122	856	119	789	121	959	117	812	126	983	116	768
21-27	120	665	108	723	109	683	137	888	135	943	139	996	126	847	140	879	141	871	130	986	146	935	142	1101	142	954	130	1113	134	902
June 28-July 4	92	757	111	834	125	808	135	1023	120	1063	132	1128	124	971	103	982	116	987	110	1090	111	1046	112	1213	111	1065	135	1248	118	1020
July 5-11	81	838	100	934	103	911	111	1134	106	1169	116	1244	107	1078	94	1076	98	1085	97	1193	87	1133	99	1312	95	1160	112	1360	101	1121
12-18	106	944	118	1052	121	1032	132	1266	131	1300	136	1380	128	1206	120	1196	129	1214	124	1317	124	1257	125	1437	125	1285	137	1497	127	1248
19-25	99	1043	116	1168	122	1154	126	1392	117	1417	130	1510	122	1328	113	1309	116	1330	115	1432	116	1373	121	1558	116	1401	129	1626	119	1367
July 26-Aug. 1	76	1119	90	1258	94	1248	92	1484	93	1510	106	1616	95	1423	95	1404	97	1427	105	1537	99	1472	109	1667	101	1502	118	1744	98	1465
Aug. 2-8	86	1205	99	1357	103	1351	104	1588	99	1609	111	1727	103	1526	106	1510	102	1529	100	1637	103	1575	102	1769	103	1605	114	1858	103	1568
9-15	84	1289	99	1456	114	1465	130	1718	126	1735	137	1864	122	1648	105	1615	116	1645	120	1757	114	1689	126	1895	116	1721	135	1993	119	1687
16-22	92	1381	99	1555	100	1565	111	1829	104	1839	117	1981	106	1754	104	1719	109	1754	102	1859	102	1791	105	2000	104	1825	126	2119	105	1792
23-29	74	1455	84	1639	94	1659	111	1940	100	1939	117	2098	101	1855	84	1803	97	1851	99	1958	87	1878	93	2093	92	1917	123	2242	97	1889
Aug. 30-Sept. 5	71	1526	76	1715	90	1749	102	2042	92	2031	105	2203	93	1948	81	1884	95	1946	94	2052	85	1963	89	2182	89	2006	118	2360	91	1980
Sept. 6-12	91	1617	107	1822	120	1869	126	2168	125	2156	140	2343	123	2071	107	1991	136	2082	133	2185	117	2080	116	2298	122	2128	146	2506	123	2103
13-19	85	1702	97	1919	111	1980	123	2291	117	2273	121	2464	114	2185	100	2091	118	2200	115	2300	107	2187	111	2409	110	2238	127	2633	112	2215
20-26	55	1757	56	1975	78	2058	97	2388	81	2354	99	2563	82	2267	67	2158	78	2278	90	2390	75	2262	83	2492	79	2317	102	2735	80	2295
Sept. 27-Oct. 3	62	1819	66	2041	78	2136	89	2477	77	2431	95	2658	81	2348	74	2232	82	2360	80	2470	80	2342	85	2577	80	2397	108	2843	81	2370
Oct. 4-10	70	1889	69	2110	74	2210	84	2561	70	2501	90	2748	78	2426	73	2305	79	2439	83	2553	69	2411	77	2654	76	2473	96	2939	77	2453
11-17	36	1925	37	2147	49	2259	66	2627	48	2549	77	2825	55	2481	47	2352	50	2489	57	2610	34	2445	41	2695	46	2519	90	3029	50	2503
18-24	36	1961	38	2185	36	2295	55	2682	43	2592	68	2893	48	2529	40	2392	39	2528	51	2661	36	2481	40	2735	41	2560	81	3110	45	2548
25-31	22	1983	20	2205	30	2325	36	2718	34	2626	36	2929	31	2560	22	2414	34	2562	35	2696	33	2514	36	2771	32	2592	60	3170	32	2580
Nov. 1-7	24	2007	23	2228	26	2351	30	2748	24	2650	30	2959	27	2587	27	2441	26	2588	26	2722	24	2538	31	2802	27	2619	34	3204	27	2607
8-14	19	2026	13	2241	15	2366	31	2779	31	2681	35	2994	25	2612	20	2461	25	2613	33	2755	13	2551	25	2827	23	2642	40	3244	24	2631
15-21	11	2037	11	2252	25	2391	31	2810	30	2711	36	3030	26	2638	24	2485	24	2639	39	2794	23	2574	29	2856	28	2670	61	3305	27	2658
22-28	0	2037	0	2252	0	2391	0	2810	0	2711	6	3036	1	2639	2	2487	1	2640	13	2807	4	2578	12	2868	7	2677	28	3333	4	2662
Nov. 29-Dec. 5	27	2064	30	2282	27	2418	34	2844	34	2745	34	3070	32	2671	30	2517	31	2671	39	2846	27	2605	36	2904	33	2710	61	3394	33	2695
Dec. 6-12	0	2064	0	2282	11	2429	31	2875	31	2776	36	3106	22	2693	22	2539	23	2694	34	2880	12	2617	31	2935	24	2734	57	3451	23	2718
13-19	1	2065	0	2282	0	2429	6	2881	3	2779	12	3118	4	2697	8	2547	7	2701	24	2904	24	2641	30	2965	19	2753	37	3488	11	2729
20-26	10	2075	0	2282	0	2429	0	2881	0	2779	0	3118	0	2697	3	2550	0	2701	1	2905	6	2647	10	2975	4	2757	9	3497	2	2731
Dec. 27-Jan. 2, 1892	2	2077	0	2282	4	2433	14	2895	14	2793	26	3144	11	2708	9	2559	18	2719	25	2930	9	2656	27	3002	17	2774	46	3543	14	2745

TABLE IV.—SHOWING THE WEEKLY AND PROGRESSIVE VALUES OF ACCUMULATED HEAT BELOW 42° F. IN EACH DISTRICT, DURING THE YEAR 1891.

DATE. — LIMITS OF WEEKS.	Principal Wheat-producing Districts.														Principal Grazing, &c. Districts.															
	0. SCOTLAND, N.		1. SCOTLAND, E.		2. ENGLAND, N.E.		3. ENGLAND, E.		4. MIDLAND COUNTIES.		5. ENGLAND, S.		MEANS FOR WHEAT-PRODUCING DISTRICTS.		6. SCOTLAND, W.		7. ENGLAND, N.W.		8. ENGLAND, S.W.		9. IRELAND, N.		10. IRELAND, S.		MEANS FOR GRAZING, &c. DISTRICTS.		CHANNEL ISLANDS.		MEANS FOR THE BRITISH ISLANDS GENERALLY.	
	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.
	DAY-DEGREES BELOW 42° FAHRENHEIT.																													
1891.																														
Jan. 4-10	60	60	76	76	80	80	104	104	90	90	87	87	87	87	61	61	67	67	67	67	60	60	53	53	62	62	30	30	74	74
11-17	23	83	32	108	46	126	85	189	70	160	76	163	62	149	24	85	39	106	50	117	24	84	34	87	34	96	28	58	48	122
18-24	56	139	60	168	64	190	64	253	63	223	51	214	60	209	36	121	47	153	44	161	35	119	25	112	38	134	25	83	49	171
25-31	22	161	24	192	13	203	13	266	12	235	6	220	14	223	7	128	9	162	2	163	12	131	7	119	7	141	0	83	11	182
Feb. 1-7	9	170	12	204	13	216	30	296	13	248	25	245	19	242	5	133	7	169	10	173	4	135	6	125	7	148	4	87	13	195
8-14	30	200	38	242	31	247	33	329	28	276	35	280	33	275	28	161	21	190	30	203	27	162	15	140	24	172	12	99	29	224
15-21	15	215	35	277	38	285	47	376	52	328	41	321	42	317	16	177	34	224	34	237	17	179	14	154	23	195	11	110	32	256
22-28	13	228	27	304	46	331	63	439	65	393	48	369	50	367	19	196	19	243	17	254	8	187	3	157	13	208	6	116	32	288
Mar. 1-7	35	263	31	335	10	341	9	448	7	400	8	377	13	380	13	209	7	250	1	255	9	196	2	159	7	215	0	116	10	298
8-14	100	363	78	413	67	408	49	497	62	462	48	425	61	441	72	281	57	307	54	309	63	259	55	214	60	275	27	143	60	358
15-21	30	393	34	447	32	440	31	528	35	497	30	455	32	473	29	310	28	335	33	342	23	282	27	241	28	303	8	151	30	388
22-28	33	426	34	481	27	467	37	565	33	530	32	487	33	506	24	334	25	360	22	364	25	307	14	255	22	325	8	159	28	416
Mar. 29-April 4	34	460	38	510	33	500	36	601	36	566	28	515	34	540	33	367	27	387	23	387	24	331	9	264	23	348	2	161	29	445
April 5-11	31	491	28	547	20	520	19	620	21	587	11	526	20	560	26	393	11	398	9	396	15	346	15	279	15	363	0	161	18	463
12-18	30	521	35	582	26	546	20	640	24	611	17	543	25	585	19	412	16	414	13	409	8	354	6	285	13	376	1	162	19	482
19-25	32	553	29	611	20	566	19	659	20	631	13	556	20	605	18	430	18	432	10	419	16	370	9	294	14	390	0	162	17	499
April 26-May 2	25	578	15	626	2	568	8	667	10	641	1	557	7	612	12	442	4	436	0	419	7	377	2	296	5	395	0	162	6	505
May 3-9	7	585	9	635	6	574	8	675	5	646	0	557	6	618	2	444	0	436	2	421	0	377	0	296	1	396	0	162	4	509
10-16	10	595	9	644	0	574	0	675	0	646	0	557	2	620	0	444	0	436	0	421	0	377	0	296	0	396	0	162	1	510
17-23	18	613	18	662	19	593	14	689	19	665	8	565	15	635	18	462	13	449	13	434	14	391	13	309	14	410	0	162	14	524
24-30	4	617	4	666	0	593	0	689	3	668	0	565	1	636	0	462	0	449	0	434	0	391	0	309	0	410	0	162	1	525
May 31-June 6	0	617	0	666	0	593	0	689	0	668	0	565	0	636	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
June 7-13	4	621	4	670	0	593	0	689	0	668	0	565	1	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
14-20	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
21-27	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
June 28-July 4	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
July 5-11	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
12-18	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
19-25	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
July 26-Aug. 1	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
Aug. 2-8	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
9-15	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
16-22	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
23-29	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
Aug. 30-Sept. 5	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
Sept. 6-12	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
13-19	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
20-26	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
Sept. 27-Oct. 3	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
Oct. 4-10	0	621	0	670	0	593	0	689	0	668	0	565	0	637	0	462	0	449	0	434	0	391	0	309	0	410	0	162	0	525
11-17	0	621	4	674	0	593	0	689	2	670	0	565	1	638	0	462	0	449	0	434	3	394	1	310	1	411	0	162	1	526
18-24	10	631	16	690	4	597	0	689	2	672	0	565	4	642	6	468	0	449	0	434	8	402	4	314	3	414	0	162	3	529
25-31	30	661	38	728	6	603	5	694	13	685	1	566	13	655	20	488	8	457	0	434	17	419	13	327	12	426	0	162	13	542
Nov. 1-7	8	669	10	738	0	603	3	697	7	692	5	571	5	660	6	494	3	460	1	435	2	421	2	329	3	429	0	162	4	546
8-14	11	680	21	759	25	628	18	715	20	712	7	578	18	678	6	500	10	470	4	439	24	445	14	343	12	441	0	162	15	561
15-21	24	704	27	786	8	636	7	722	7	719	0	578	10	688	11	511	2	472	0	439	13	458	10	353	7	448	0	162	9	570
22-28	45	749	54	840	39	675	41	763	42	761	37	615	43	731	41	552	33	505	33	472	31	489	38	391	35	483	5	167	39	609
Nov. 29-Dec. 5	10	759	17	857	13	688	15	778	15	776	1	616	12	743	6	558	9	514	0	472	8	497	5	396	6	489	0	167	9	618
Dec. 6-12	39	798	36	893	21	709	11	789	12	788	4	620	17	760	12	570	8	522	4	476	21	518	10	406	11	500	0	167	14	632
13-19	35	833	47	940	34	743	35	824	37	825	22	642	35	795	27	597	26	548	7	483	10	528	5	411	15	515	0	167	25	657
20-26	26	859	50	990	95	838	95	919	110	935	70	712	84	879	29	626	76	624	44	527	34	562	32	443	43	558	27	194	64	721
Dec. 27-Jan. 2, 1892	27	886	33	1023	29	867	28	947	27	962	9	721	25	904	19	645	11	635	5	532	25	587	12	455	14	572	0	194	19	740

TABLE V.—SHOWING THE WEEKLY AND PROGRESSIVE NUMBERS OF HOURS OF BRIGHT SUNSHINE IN EACH DISTRICT, REGISTERED DURING THE YEAR 1891.

DATE. — LIMITS OF WEEKS.	Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
	0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for Grazing, &c. Districts.					
	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.
	Numbers of Hours of Bright Sunshine.																													
1891.																														
Jan. 4-10	9	9	10	10	8	8	17	17	17	17	19	19	14	14	14	14	14	14	23	23	18	18	20	20	18	18	27	27	16	16
11-17	3	12	6	16	7	15	11	28	14	31	16	35	11	25	13	27	14	28	25	48	11	29	20	40	17	35	28	55	14	30
18-24	6	18	14	30	16	31	19	47	16	47	18	53	17	42	12	39	11	39	10	58	11	40	11	51	11	46	18	68	14	44
25-31	7	25	13	43	13	44	22	69	21	68	17	70	17	59	13	52	17	56	17	75	23	63	26	77	19	65	29	97	18	62
Feb. 1-7	8	33	11	54	16	60	17	86	15	83	11	81	14	73	6	58	7	63	13	88	8	71	10	87	9	74	14	111	11	73
8-14	9	42	19	73	15	75	16	102	16	99	18	99	17	90	15	73	13	76	27	115	17	88	15	102	17	91	33	144	17	90
15-21	20	62	33	106	23	98	20	122	28	127	33	132	27	117	20	93	34	110	39	154	31	119	33	135	32	123	54	198	30	120
22-28	17	79	27	133	34	132	49	171	43	170	46	178	40	157	18	111	43	153	47	201	17	136	22	157	29	152	66	264	35	155
Mar. 1-7	18	97	32	165	26	158	21	192	19	189	21	199	24	181	14	125	14	167	17	218	16	152	17	174	16	168	12	276	20	175
8-14	41	138	37	202	29	187	17	209	16	205	7	206	21	202	43	168	31	198	17	235	53	205	46	220	38	206	13	289	30	205
15-21	21	159	8	210	13	200	16	225	10	215	12	218	12	214	29	197	18	216	27	262	29	234	22	242	25	231	38	327	18	225
22-28	10	169	20	230	27	227	38	263	30	245	33	251	30	244	20	217	21	237	31	293	16	250	34	276	24	255	46	373	27	250
Mar. 29-Apr. 4	35	204	24	254	28	255	29	292	26	271	30	281	27	271	33	250	27	264	27	320	21	271	24	300	26	281	35	408	27	277
April 5-11	33	237	22	276	15	270	10	302	12	283	15	296	15	286	21	271	15	279	23	343	21	292	34	334	23	304	30	438	19	296
12-18	42	279	47	323	32	302	31	333	33	316	36	332	36	322	40	311	35	314	52	395	32	324	36	370	39	343	56	494	38	334
19-25	50	329	40	363	29	331	34	367	27	343	43	375	34	356	56	367	33	347	40	435	50	374	46	416	45	388	64	558	39	373
April 26-May 2	21	350	31	394	29	360	28	395	31	374	30	405	30	386	27	394	22	369	33	468	25	399	29	445	27	415	39	597	29	402
May 3-9	35	385	29	423	29	389	45	440	33	407	43	448	36	422	31	425	28	397	39	507	30	429	28	473	31	446	49	646	34	436
10-16	48	433	56	479	57	446	58	498	58	465	53	501	56	478	53	478	47	444	64	571	60	489	62	535	57	503	56	702	57	493
17-23	48	481	51	530	35	481	26	524	27	492	36	537	35	513	50	528	37	481	33	604	37	526	43	578	40	543	51	753	37	530
24-30	32	513	25	555	22	503	26	550	28	520	40	577	28	541	34	562	29	510	48	652	33	559	36	614	36	579	50	803	32	562
May 31-June 6	70	583	33	588	54	557	37	587	37	557	56	633	43	584	36	598	34	544	31	683	24	583	25	639	30	609	58	861	37	599
June 7-13	60	643	63	651	37	594	34	621	46	603	47	680	45	629	59	657	54	598	53	736	54	637	54	693	55	664	49	910	50	649
14-20	21	664	21	672	36	630	47	668	53	656	61	741	44	673	36	693	46	644	58	794	37	674	49	742	45	709	72	982	45	694
21-27	59	723	51	723	40	670	44	712	32	688	44	785	42	715	60	753	45	689	45	839	59	733	56	798	53	762	54	1036	47	741
June 28-July 4	16	739	39	762	49	719	53	765	42	730	56	841	48	763	32	785	51	740	40	879	40	773	36	834	40	802	61	1097	44	785
July 5-11	17	756	34	796	29	748	35	800	39	769	39	880	35	798	30	815	27	767	44	923	14	787	21	855	27	829	49	1146	31	816
12-18	36	792	29	825	26	774	32	832	40	809	51	931	36	834	51	866	40	807	67	990	57	844	53	908	54	883	66	1212	45	861
19-25	16	808	28	853	34	808	32	864	33	842	41	972	34	868	36	902	25	832	34	1024	27	871	31	939	30	913	43	1255	32	893
July 26-Aug. 1	23	831	37	890	33	841	33	897	29	871	40	1012	34	902	49	951	34	866	44	1068	23	894	24	963	35	948	52	1307	35	928
Aug. 2-8	22	853	26	916	20	861	35	932	32	903	40	1052	31	933	33	984	27	893	45	1113	22	916	27	990	31	979	55	1362	31	959
9-15	15	868	29	945	33	894	33	965	28	931	33	1085	31	964	24	1008	25	918	36	1149	22	938	26	1016	26	1005	31	1393	29	988
16-22	28	896	20	965	16	910	31	996	31	962	37	1122	27	991	24	1032	26	944	30	1179	18	956	21	1037	24	1029	50	1443	25	1013
23-29	22	918	27	992	19	929	29	1025	27	989	30	1152	26	1017	35	1067	20	964	34	1213	28	984	33	1070	30	1059	39	1482	28	1041
Aug. 30-Sept. 5	20	938	31	1023	36	965	38	1063	36	1025	29	1181	34	1051	27	1094	28	992	38	1251	23	1007	29	1099	29	1088	31	1513	32	1073
Sept. 6-12	20	958	42	1065	50	1015	66	1129	59	1084	58	1239	55	1106	44	1138	49	1041	54	1305	39	1046	43	1142	46	1134	79	1592	50	1123
13-19	19	977	27	1092	18	1033	25	1154	18	1102	20	1259	22	1128	21	1159	22	1063	16	1321	21	1067	20	1162	20	1154	19	1611	21	1144
20-26	17	994	16	1108	17	1050	20	1174	19	1121	21	1280	18	1146	20	1179	19	1082	26	1347	35	1102	42	1204	28	1182	33	1644	23	1167
Sept. 27-Oct. 3	19	1013	21	1129	19	1069	51	1225	36	1157	56	1336	37	1183	16	1195	13	1095	33	1380	26	1128	35	1239	25	1207	52	1696	31	1198
Oct. 4-10	12	1025	20	1149	18	1087	27	1252	23	1180	23	1359	22	1205	25	1220	15	1110	30	1410	24	1152	28	1267	24	1231	31	1727	23	1221
11-17	15	1040	24	1173	23	1110	30	1282	24	1204	27	1386	26	1231	22	1242	18	1128	25	1435	22	1174	26	1293	23	1254	36	1763	24	1245
18-24	21	1061	27	1200	22	1132	25	1307	25	1229	21	1407	24	1255	27	1269	20	1148	27	1462	36	1210	36	1329	29	1283	26	1789	27	1272
25-31	37	1098	25	1225	16	1148	24	1331	26	1255	29	1436	24	1279	28	1297	36	1184	30	1492	38	1248	34	1363	33	1316	39	1828	29	1301
Nov. 1-7	8	1106	6	1231	0	1148	11	1342	5	1260	15	1451	8	1287	4	1301	3	1187	12	1504	7	1255	10	1373	7	1323	43	1871	8	1309
8-14	7	1113	12	1243	8	1156	16	1358	11	1271	14	1465	12	1299	5	1306	5	1192	7	1511	12	1267	12	1385	8	1331	17	1888	10	1319
15-21	9	1122	8	1251	10	1166	4	1362	8	1279	4	1469	7	1306	13	1319	8	1200	10	1521	19	1286	14	1399	13	1344	8	1896	10	1329
22-28	7	1129	14	1265	10	1176	11	1373	15	1294	21	1490	14	1320	11	1330	11	1211	25	1546	11	1297	25	1424	17	1361	27	1923	15	1344
Nov. 29-Dec. 5	4	1133	7	1272	7	1183	8	1381	11	1305	5	1495	7	1327	9	1339	11	1222	15	1561	16	1313	17	1441	14	1375	14	1937	10	1354
Dec. 6-12	6	1139	11	1283	14	1197	14	1395	11	1316	13	1508	13	1340	10	1349	7	1229	10	1571	7	1320	9	1450	8	1383	19	1956	11	1365
13-19	3	1142	7	1290	7	1204	10	1405	12	1328	18	1526	11	1351	6	1355	6	1235	12	1583	5	1325	6	1456	7	1390	30	1986	9	1374
20-26	4	1146	14	1304	4	1208	12	1417	8	1336	21	1547	12	1363	4	1359	11	1246	15	1598	17	1342	22	1478	14	1404	36	2022	13	1387
Dec. 27-Jan. 2, 1892	3	1149	13	1317	17	1225	18	1435	17	1353	16	1563	16	1379	14	1373	9	1255	13	1611	9	1351	14	1492	12	1416	14	2036	14	1401

TABLE VI.—SHOWING THE WEEKLY AND PROGRESSIVE VALUES FOR THE PERCENTAGES OF THE POSSIBLE DURATION OF BRIGHT SUNSHINE IN EACH DISTRICT, WHICH WAS ACTUALLY RECORDED DURING THE YEAR 1891.

DATE. — LIMITS OF WEEKS.	0. Scotland, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat Producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for Grazing, &c. Districts.					
	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.	Weekly.	From Jan. 4/91.
	Percentages of Possible Duration.																													
1891.																														
Jan. 4-10	20	20	21	21	16	16	31	31	31	31	34	34	27	27	28	28	26	26	40	40	34	34	37	37	33	33	46	46	30	30
11-17	5	12	11	16	14	14	19	26	24	28	29	31	19	23	24	26	27	26	42	42	19	27	36	37	29	32	46	47	24	28
18-24	11	12	25	20	28	19	34	28	27	28	30	31	29	25	22	25	20	24	17	33	19	25	19	31	19	27	22	38	24	26
25-31	12	12	23	20	22	20	36	30	34	30	27	30	28	26	23	24	29	25	27	32	39	29	43	34	32	29	46	40	30	28
Feb. 1-7	14	13	20	20	25	21	27	29	23	29	17	27	22	25	10	21	11	22	21	29	13	25	16	30	14	25	21	36	18	25
8-14	14	13	31	22	22	22	24	28	23	28	27	27	26	25	23	21	20	22	40	31	26	25	23	29	26	26	48	38	26	26
15-21	30	16	49	27	34	24	29	29	41	30	47	30	40	28	29	23	50	26	55	35	46	29	48	32	46	29	76	44	43	29
22-28	25	17	37	28	47	27	67	34	59	34	62	35	54	32	25	23	59	31	56	39	24	29	30	32	41	31	89	51	48	32
Mar. 1-7	25	18	43	30	34	28	28	33	24	33	27	34	31	32	19	22	18	30	22	37	21	27	22	30	20	29	16	46	26	31
8-14	51	22	47	32	36	29	21	32	20	31	9	31	27	31	55	26	39	31	22	35	67	32	58	34	48	32	17	43	37	31
15-21	25	23	9	30	15	28	19	30	12	29	14	29	14	29	34	27	22	30	33	35	35	32	27	33	30	31	46	43	22	30
23-28	13	22	23	29	31	28	44	32	35	30	39	30	34	30	23	27	24	29	36	34	18	31	40	33	28	31	53	44	31	30
Mar. 29-April 4	39	23	26	29	31	28	33	32	29	30	33	30	30	30	36	28	29	29	30	34	23	30	27	33	29	31	38	43	30	31
April 5-11	35	24	23	28	16	27	11	30	15	28	16	29	16	28	23	27	16	28	24	33	23	29	36	33	24	30	33	43	20	29
12-18	42	26	47	30	33	28	33	30	34	29	38	30	37	29	41	29	35	29	54	35	33	30	37	34	40	31	59	44	39	30
19-25	49	28	39	31	29	28	35	30	27	28	43	31	35	30	56	31	33	29	40	36	49	31	46	35	45	32	65	46	40	31
April 26-May 2	19	27	29	31	28	28	27	30	30	29	30	31	29	30	26	30	21	28	33	36	24	31	29	34	27	32	39	45	28	31
May 3-9	32	28	27	30	27	28	43	31	32	29	42	32	34	30	29	30	26	28	38	36	28	31	27	33	30	32	48	45	32	31
10-16	42	29	50	32	52	29	54	33	53	31	50	33	52	32	49	32	43	29	60	37	55	32	57	35	53	33	53	46	53	33
17-23	41	30	42	33	31	30	24	32	25	30	33	33	31	32	44	33	33	29	30	37	34	32	39	35	36	33	48	46	33	32
24-30	27	29	21	32	19	29	23	32	25	30	36	33	24	31	30	32	25	29	43	37	29	32	32	35	32	33	46	46	28	32
May 31-June 6	58	31	28	32	47	30	32	32	33	30	50	34	38	32	31	32	29	29	27	37	21	31	22	34	26	33	53	46	32	33
June 7-13	49	32	52	33	31	30	30	32	40	31	43	35	39	32	50	33	46	30	47	37	46	32	47	35	47	33	44	46	43	33
14-20	17	32	17	32	31	30	41	32	46	31	54	36	38	32	31	33	39	31	51	38	32	32	42	36	39	34	64	47	39	33
21-27	47	32	42	32	33	30	38	32	27	31	38	36	36	32	50	34	38	31	40	38	50	33	48	36	45	34	48	47	40	33
June 28-July 4	13	31	32	32	41	31	46	33	36	31	50	36	41	33	27	34	43	32	35	38	34	33	31	36	34	35	55	48	38	34
July 5-11	13	31	28	32	25	31	31	33	34	32	35	36	31	33	25	33	23	31	39	38	12	32	18	35	23	34	44	48	27	34
12-18	30	31	24	32	23	30	29	33	36	32	47	37	32	33	44	34	35	32	61	39	50	33	47	36	48	35	61	48	40	34
19-25	13	30	25	32	30	30	29	33	30	32	38	37	30	33	32	34	22	31	31	39	24	33	28	35	27	34	40	48	29	34
July 26-Aug. 1	21	29	33	32	30	30	30	32	27	32	37	37	31	33	45	34	31	31	42	39	21	32	22	35	32	34	50	48	32	34
Aug. 2-8	20	29	24	31	19	30	33	32	31	32	37	37	29	32	31	34	25	31	43	39	21	32	26	34	29	34	54	48	29	33
9-15	14	28	28	31	31	30	32	32	27	31	33	36	30	32	23	34	24	31	35	39	21	31	26	34	26	34	31	47	28	33
16-22	26	28	20	31	16	29	31	32	31	31	38	37	27	32	24	33	26	31	30	39	18	31	21	34	24	34	51	47	26	33
23-29	22	28	28	31	20	29	29	32	28	31	31	37	27	32	36	33	20	30	35	38	28	31	34	34	31	33	41	47	29	33
Aug. 30-Sept. 5	21	28	32	31	38	29	41	33	38	32	31	36	36	32	28	33	30	30	41	39	25	31	31	34	31	33	34	47	34	33
Sept. 6-12	22	28	46	31	55	30	73	34	65	32	65	37	61	33	47	34	53	31	60	39	43	31	48	34	50	34	89	48	56	34
13-19	22	28	31	31	20	30	29	34	21	32	23	37	25	33	25	33	25	31	19	39	24	31	23	34	23	34	22	47	24	34
20-26	20	28	19	31	20	30	24	33	23	32	25	36	22	32	24	33	20	30	31	38	42	31	49	34	33	33	39	47	28	33
Sept. 27-Oct. 3	24	28	27	31	23	29	63	34	44	32	69	37	45	33	21	33	16	30	41	38	32	31	42	34	31	33	64	48	38	33
Oct. 4-10	15	27	26	31	24	29	35	34	31	32	30	37	29	33	34	33	19	30	38	38	32	31	37	34	32	33	39	48	31	33
11-17	21	27	33	31	30	29	40	34	32	32	36	37	34	33	29	33	24	30	33	38	30	31	35	34	30	33	49	48	32	33
18-24	31	27	40	31	32	29	35	34	36	32	29	37	35	33	38	33	29	30	38	38	51	31	52	35	42	33	36	47	39	33
25-31	58	28	38	31	24	29	36	34	39	32	43	37	36	33	42	33	55	30	44	38	58	32	50	35	50	34	57	48	43	34
Nov. 1-7	13	28	10	31	0	29	18	34	8	32	23	37	12	33	6	33	5	30	18	38	12	32	16	35	11	34	64	48	11	34
8-14	12	27	21	30	14	29	26	34	18	32	22	37	20	32	9	32	8	30	10	38	21	31	19	34	13	33	27	47	17	33
15-21	17	27	14	30	17	29	7	33	13	31	7	36	12	32	24	32	13	29	16	37	33	31	24	34	22	33	13	47	17	33
22-28	14	27	27	30	18	29	19	33	27	31	36	36	25	32	20	32	21	29	43	37	20	31	44	34	30	33	44	47	28	33
Nov. 29-Dec. 5	9	27	15	30	13	28	15	33	20	31	8	36	14	32	16	32	20	29	26	37	24	31	30	34	23	33	24	47	19	33
Dec. 6-12	12	27	23	30	27	28	27	33	21	31	23	36	24	32	20	32	13	29	17	37	14	31	17	34	16	33	33	46	20	33
13-19	6	26	16	30	15	28	19	33	23	31	34	36	21	32	13	31	12	29	22	37	9	31	11	34	13	32	54	46	17	32
20-26	8	26	29	30	9	28	22	33	14	31	38	36	22	32	9	31	22	29	27	37	33	31	42	34	27	32	65	47	24	32
Dec. 27-Jan. 2, 1892	6	26	28	30	33	28	34	33	32	31	29	36	31	32	28	31	18	28	25	37	18	31	26	34	23	32	25	46	27	32